Multilinguisme et équité en santé des populations déplacées
Multilingualism and health equity for displaced populations

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Résumé
L'augmentation du nombre des déplacés de force au Cameroun au cours des dix dernières années a considérablement accru la diversité linguistique des zones où elles s'installent. Si pas gérée, cette diversité impressionnante affecte profondément le degré de confiance des personnes déplacées envers les autorités sanitaires et leur engagement dans les thérapies. Les connaissances existantes permettent de proposer un ensemble d'actions concrètes visant à encourager les prestataires de santé à exploiter, plutôt qu'à ignorer, la diversité linguistique et culturelle, tout en augmentant les connaissances en santé des bénéficiaires. Cet article est une première étape dans cette direction.
Mots-clés: langue et santé, interaction patient-prestataire, diversité linguistique, santé publique, communication des risques, langues minoritaires, populations déplacées de force, réfugiés.

Abstract
The steady rise in the numbers of forcibly displaced populations in Cameroon over the past ten years has dramatically increased the linguistic diversity of the areas where they settle. If it is not properly managed, this appalling diversity profoundly affects the displaced people's degree of trust in health

authorities and engagement in therapy. Existing knowledge allows to propose a concrete set of actions towards having providers exploit rather than ignore linguistic and cultural diversity in health-related contexts and, at the same time, increasing community members' health literacy. This article is a first step in this direction.
Keywords: language and health, patient-provider interaction, linguistic diversity, public health, risk communication, minoritized languages, forcibly displaced populations, refugees.

Introduction

Income, education, working life conditions, housing, and food and personal insecurity are among the factors that get the most attention as social determinants of health, i.e. "the non-medical factors that influence health outcomes" (e.g. WHO 2024). As for language, the public discourse on health equity most often looks at it as a demographic marker that can reliably inform policy makers about the ethnic diversity of a given population, with little to no concrete consequences at the level of actions meant to improve access to health care. It is often after major health crisis, like the 2015 Ebola outbreak in West Africa (e.g. Bastide, 2018) and the COVID-19 pandemic (see, e.g., Federici, 2022, Di Carlo et al, 2022a), that researchers and health practitioners alike realize the importance of language in efforts to reduce health disparities among linguistically diverse communities.

It is on this basis that we organized a workshop entitled "Multilingualism and Health: Inequalities, experiences, and the future of a science-society network for the benefit of all" during the 1st International Colloquium of the Observatoire sur le Plurilinguisme Africain. The workshop was open to researchers in all disciplines and health practitioners and promoters, in a bid to contribute to the ongoing discussion on how a renewed attention to language can concretely advance the global health equity agenda.[1] Thanks also to

[1] We thank all the participants for their input.

the participation of two Nigerian refugees currently residing in the UNHCR camp of Minawao, in the Far North Region of Cameroon, and of ongoing research in the camp coordinated by the first author and funded through a grant from the U.S. National Science Foundation (see Di Carlo et al, under review), the workshop focused specifically on the relationship between language and access to healthcare provisions among forcibly displaced populations. Therefore, this article is meant both as a report from that workshop and a concept paper for pursuing the goal of equity in the access to healthcare provisions in sub-Saharan Africa, with special attention devoted to how this plays out among forcibly displaced populations and individuals in Cameroonian settings.

After a concise illustration of the theoretical framework within which our workshop and overall interests lie (section 1), we outline the current situation of refugee and internally displaced persons (IDP) in Cameroon (section 2), provide a summary of the discussions that took place during the workshop (section 3), and finally propose a few key principles for future development and interventions in this domain (section 4).

1. The relationship between language and health

One might question how the particular words and grammar a person uses influence their susceptibility to diseases, but this perspective overlooks the broader understanding of both language and health that has developed through the 20th century. As early as 1946, the World Health Organization adopted a view of health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". This definition implies that exploring the relationship between language and health must consider not only disease but also the various factors influencing overall physical, mental, and social well-being. Similarly, viewing language solely as a collection of words and grammatical rules fails to capture our current, more comprehensive understanding of language as a socially-situated

phenomenon. Key in the development of this view has been the increased availability of data from settings where traditional forms of multilingualism are practiced (Lüpke, 2016).

The relationship between language and health is best examined from at least two distinct perspectives. Firstly, language can be seen as a key factor in accessing care. Without a common communicative system, access to care becomes restricted if not impossible. This restriction prevents patients from conveying symptoms, side effects, and other crucial information needed for effective treatment, and also hinders them from obtaining vital information about their condition, its treatment, and risk factors. Limited access to information is the most evident negative impact of language barriers, and it plays a crucial role in the relationship between language and health.

The second perspective on this relationship stems from the recognition that the way people speak influences the development of personal bonds (e.g. Ide & Hata 2020), and serves as a form of symbolic capital that establishes and reproduces social structure in a community (Bourdieu, 1991), including patterns of personal identity (Le Page and Tabouret-Keller 1985). These insights remind us that, in human communication, there is nothing linguistic that is not also simultaneously social, at times imbued with profound significance.

The literature discussing aspects of the complex relationship between language and health rarely addresses African realities, so it is worth recalling some of the few existing studies here.

At the micro-level of the patient-provider interactions (PPI), a study led in Bamako on a diverse population of HIV-affected individuals (Hurley et al, 2018) found that both the language used and the culture-specific ways to pay respect shown by medical staff in PPI influenced patients' rates of engagement and re-engagement in antiretroviral treatment. Many patients who primarily spoke Bambara, the main local language, reported feeling disconnected from medical staff who used French or medical jargon—where disconnection is normally followed by lack of trust and disengagement from treatment.

Some participants in the study also stressed the importance of "extended personal greetings and blessings according to local customs" and of making "traditional 'joking cousins' (teasing aligned with rival family surnames)" as ways for patients to feel welcome and comfortable (Hurley et al, 2018, p. 132). Providers who had established a positive relation with patients through a 'good welcome' were also able to successfully calm the patients in times of distress or anxiety which was also an essential aspect of the healing process.

At the macro-level of public health communication, it must be noted that in postcolonial contexts in general, and African ones in particular, long histories of nation-building cultural assimilation policies that "simply ignored the diversity of large segments of the population, in particular racial and linguistic minorities" (Torbisco Casals, 2015: 469) have caused deeply rooted distrust of state institutions, especially among marginalized groups (see, e.g., Mizuno and Okazawa, 2009). In these settings, a major obstacle for the reception of health-related communication among culturally diverse groups is that some might perceive state-promoted health policies as being aimed to do harm (e.g. Bastide 2018). While evidence-based research in this domain is scarce in African contexts, there have been initiatives that tried to put into practice principles like the linguistic and cultural appropriateness of messages and the importance of leveraging local styles of communicative practices (Ataguba and Ataguba 2020), like the virALLanguages project (Di Carlo et al. 2022b).

2. Forcibly displaced populations in Africa: the case of Cameroon

2.1. Emerging urban geographies

The literature on PPI mostly reflects Global North settings where minorities are demographically large communities, like Latinos or Blacks in the US. The kind of demographic, linguistic, and cultural

complexities found in this literature pales by comparison to African realities. In Cameroon, for instance, there are somewhere between 250 and 300 distinct language communities. Religious diversity is also noticeable, with Islam dominating in the northern regions and Christianity in the rest of the country, under many confessions, with about a fifth of the population practicing mostly traditional religions. In spite of this diversity, medical consultations are normally held in one of the two official languages, French and English, depending on whether the healthcare provider was born and raised in areas that were under French or British control before Cameroon's independence in 1960. Moreover, medical staff is relatively mobile, so it is not rare to find, e.g., Christian providers in predominantly Muslim areas.

Over the last few decades, however, mass urbanization has progressively made these historical links between languages, cultures, and geographical areas somewhat obsolete, with cities like Yaounde or Douala containing nearly all of the country's diversities. Urban immigrants tend to settle close to earlier immigrants from the same area, like in Douala's "Briqueterie" neighborhood, which is known to be inhabited mostly by Muslim immigrants from the north, and "Biyem-Assi", where most residents come from the North-West, anglophone region. These emerging urban geographies have influenced the spatial distribution of healthcare providers, especially those run by private companies or faith-based organizations. While hospitals run by Muslim FBO's are overall very rare, Christian hospitals—which, put together, are almost as many as the total of government hospitals—are normally built following the spatial distribution of church communities in order to guarantee the first clientele being served are the Christians themselves.

All this is to point out that, being constantly exposed to people's mobility for decades, the Cameroonian civil society has had some time to adapt to the ensuing emerging urban geographies, making it possible for localized, resilient strategies to arise and progressively consolidate—with at least some basic benefits for some local

populations in urban areas. What has happened over the past ten years in terms of mobility and emerging geographies cannot be compared to these long-term trends.

2.2. The sudden surge of displaced populations

With more than 2 million forcibly displaced people in a population of around 28 million, Cameroon is one of the African countries with the highest per capita number of refugees and internally displaced persons. Until 2013, refugees were in the thousands and there were virtually no Internally Displaced Persons (IDPs): since then, however, there has been a massive increase in the number of both categories of displaced people (see figures 1-3). This has been due, on the one hand, to the surge of Boko Haram and its violent raids in Nigeria's Borno State, which determined the displacement of tens of thousands of people towards Cameroon—where, for example, the UNHCR founded refugee camps like that of Minawao (see below). On the other hand, the so-called anglophone crisis (Pommerolle and Heungoup 2017) has caused indiscriminate death and destruction throughout both the North West and South West Regions whence hundreds of thousands of people, especially rural dwellers, have left seeking refuge in safer areas of the country, especially in the Littoral Region and around the capital, Yaounde.

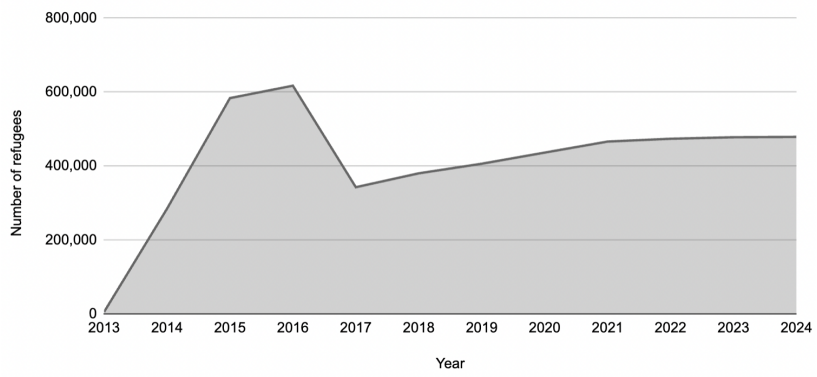

Figure 1. Number of refugees in Cameroon in the period 2013-2024 (last updated March 2024). Chart elaborated on the basis of data from the UNHCR.

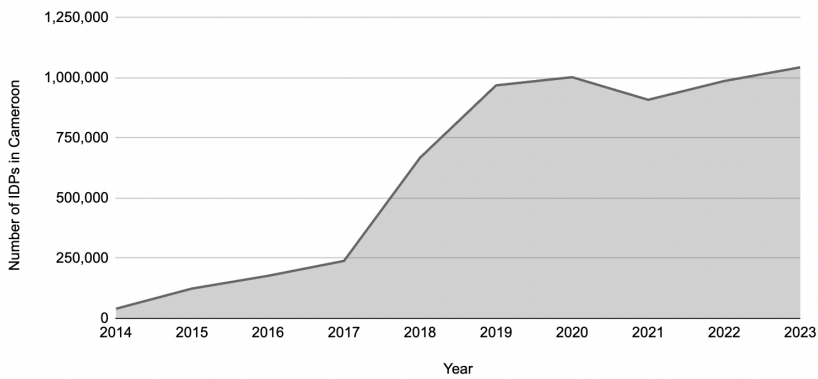

Figure 2. Number of Internally Displaced Persons in Cameroon in the period 2014-2023 (last updated December 2023). Chart elaborated on the basis of data from the International Displacement Monitoring Centre.

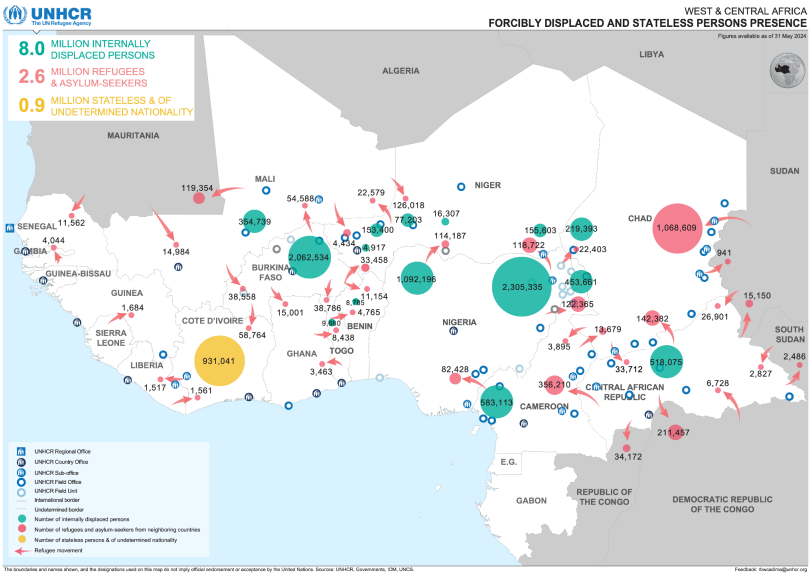

Figure 3: Forcibly displaced and stateless persons across countries of West and Central Africa.

The kind of diversity that these demographic dynamics have determined on the ground cannot be compared to the diversity that was caused by mass urbanization over decades. As a matter of fact, several of the areas where these forcibly displaced populations come from are hotspots of linguistic diversity within a wider region that was already known for its diversity, i.e. the "sub-Saharan fragmentation belt" (Dalby 1970). Cases in point are the Mandara mountains, which is where half the population of the UNHCR camp of Minawao comes from, and the western Grassfields, the macro-region of origin of a majority of Cameroonian IDPs currently settled in the Littoral Region. As a result, we now have situations in Cameroon where there has been a sudden demographic surge both in absolute numbers and in the number of distinct ethnolinguistic groups. Multilingualism is the norm, thus basic communication is not the main threat. But if we look at the social functions of language (see §1), then we realize that what

is at stake is an unmanageable density of potential social meanings indexed by the use of one or the other language.

For different reasons, both refugees and IDPs are mostly invisible to researchers and the general public and most of them, especially among the IDPs, are left to cope with the hardships of their lives with no significant outside help. As a matter of fact, we have barely any data concerning their degree of access to healthcare provision, their relationships with providers, and the problems that they may encounter due to the fact that they speak languages that may be little if at all known by local populations. One of the goals of our workshop has been to contribute to filling this informational gap. In the next section, we summarize some of the testimonies that we have collected during our discussions.

3. Reported cases

Workshop participants were asked to share anything they knew concerning the potential difficulties that displaced persons might face in their new environments. A majority of the cases that were reported focused on IDPs from anglophone regions who have settled in francophone areas (3.1). Other cases reported difficulties in communication between physicians and the elderly (3.2), the limited reach in risk and health-related communication in the UNHCR camp of Minawao (3.3), and some interventions by the Presbyterian Church of Cameroon in areas where the population has recently diversified mostly as a result of people's displacement (3.4).

3.1. Anglophone IDPs in francophone areas

A type of case that several participants reported is that of an IDP originally from the North-West Region who settled in a city of the West, Center, or Littoral Regions. Most people in the North-West use Cameroon Pidgin English as a lingua franca and do not speak any French, whereas in the West, Center, and Littoral Regions people

normally speak French and only few of them can speak English or Cameroon Pidgin English. Here we report only two such cases.

Case 1: A lady who had escaped from Bamenda and migrated to a village close to Dschang, went to a hospital in Dschang to seek treatment as she was experiencing stomach pain. The doctor did not understand the patient who spoke only in English, but a nurse said she could translate it into French. The nurse reported to the doctor what the participant later found out was “heart pain” rather than “stomach pain”. The doctor therefore prescribed a medicine for the heart which was not suitable for patients with gastric illness. The patient took the medication and her condition worsened severely until she decided to risk her life and go back to Bamenda. There, staff at the Mbingo hospital discovered that she had had the wrong prescription.

Case 2: A child IDP residing with his family around Yaounde was admitted to pediatrics in a local hospital for pain and fever. The next day, the child's mother decided to go and have her child treated at home because she had found that he had a swollen “spleen”. The pediatrician, who could only speak French, told her that the fever had to be brought down first but she did not understand and decided to bring the child home. The child died during the night.

3.2 Health-related communication with the elderly

Several participants also reported situations in which a campaign meant to spread awareness of specific illnesses among the local population encountered difficulties (or failed) because the information was conveyed in a language that only few understood and in ways that transcended local cultural norms. We report here one of these cases: even if it does not focus on displaced people, we considered it worth being discussed here because the kind of difficulties it exemplifies can only be exacerbated in diverse settings like a refugee camp.

In 2023, a campaign was implemented in several localities in the West Region for the diffusion of information about illnesses like diabetes and hypertension. The main event of such a campaign was,

in each locality, a public session during which a medical doctor presented the illnesses (symptoms, etiology, possible therapies) and then was available to answer the audience's questions. One of the participants reported what happened when the event took place in Bafou. Bafou is an important center in the West Region whose ancestral and most frequently used language is Yemba, with a majority of people who also know French. The presenter—a medical doctor who was born in Bafou herself but then spent most of her life outside of it—introduced herself and the general project in Yemba but then apologized and said she could only continue in French. The audience was mostly elderly people, i.e. those who are most often affected by pathologies like diabetes and hypertension: as a matter of fact, very few Bafou elders understand French. Respectfully, the audience listened to the presenter throughout her speech, but very few people, if any one, had the vaguest clue of what she was talking about. In this situation, the Q&A session featured only a couple of questions asked, in French, by some younger audience members. The person who reported this case stressed that the elders' disappointment with the campaign main event was palpable, and that the presenter later tried to appease them by engaging a local doctor who was fully fluent in both French and Yemba as an interpreter. Even then, however, the lack of knowledge of local medical traditions and terminologies left the interpreter using French terms like "diabète" and "hypertension" throughout her translation, terms which made no sense to the elders who were the main campaign target.

3.3. Public health-related information in Minawao

The UNHCR camp of Minawao is inhabited by about 80,000 people whose areas of provenance are located mainly along the northeasternmost part of Nigeria's Borno State, known for its linguistic diversity. As a result, Minawao is today one of the linguistically densest places on the planet, with more than 25 languages spoken in an area of about 6 square kilometers (Goron

2020). Many of the refugees speak Hausa as a lingua franca and only few of them are learning Fulfulde, the lingua franca in the region where Minawao is located, or French, the official language that traditionally predominates in northern Cameroon. Proficiency in English is limited both among refugees and camp health providers alike. Notwithstanding all this, signboards in the camp are predominantly in French and English, and medical staff in the local health center normally come from francophone areas of Cameroon and, therefore, are only fluent in French.

Reportedly, there are refugees who are fluent in both French and a few languages spoken in the camp who, thanks to their multilingual proficiency, can and do act as interpreters in the health center. However, it is not infrequent that the refugees seeking health care, especially elderly people, do not understand or speak Hausa nor any of the other languages that the interpreters speak well. As a result, even if consultations, clinical analyses and, at times, basic treatments are free of charge in the camp, several refugees remain unclear on their conditions, on their prognosis, and on several important aspects of their lifestyle that they should change or monitor as integral parts to their healing process.

In general, implementing health-related information campaigns in the camp is an endeavor that the refugees who participated in the workshop stressed as overall unsuccessful due to the diversities, both linguistic and cultural, that pervade the camp.

3.4. Two interventions made by the Presbyterian Church in Cameroon

In this section, we briefly summarize two examples coming from the direct experience of the Presbyterian Church in Cameroon (PCC) Health Services in which the choice of the languages used in a health-related intervention was key for success.

3.4.1 Responding to a re-emergence of leprosy

Between June 2021 and August 2023, funded by "Bread for the World", the PCC Health Services and the Cameroon Baptist Church (CBC) Health Services implemented the project "Rapid Response to Leprosy: addressing Leprosy outbreak in two health districts in the restive Northwest and Southwest regions of Cameroon". In Cameroon, leprosy elimination was achieved at the national level since 2000 but a number of new cases had been recorded since 2020 among populations that had been forcibly displaced to more or less temporary settlements in forest areas in order to escape from the violent conflict between Ambazonian separatist groups and the national army. The environmental and hygienic conditions of the makeshift settlements made them highly vulnerable to diseases such as leprosy. The project involved identifying IDP settlements, identifying persons at risk, checking and testing for symptoms and treating cases while ensuring preventive measures were taken among communities to reduce the risk of spread. While the PCC Focused in Nguti Subdivision, Kupe Manenguba Division in the South West Region, the CBC focused its work in the North West Region, specifically in Njoketunjia, Ndop.

These IDP communities needed to be told in a language they understood that they were at risk, that the project could help them get tested and treated for free, and that the success of the project also depended on their cooperation for, e.g., spreading the news, identifying other settlements that project staff were not aware of, and telling their families to get tested, too. Public health communication included the use of local radio stations, social media, and printed materials in English, based on the fact that both target areas are located in anglophone Cameroon and that at least some of the community members would surely know English. However, after a few months into the project, public engagement was still low. In response to this, the project team engaged community volunteers with proven mastery of the local language of the target populations—which was mainly Kenyang in Nguti—as well as Cameroon Pidgin English, i.e. the local

lingua franca spoken by nearly everyone in these areas. Messages distributed through radio broadcasting and social media were also created in these languages. The response was immediate: Within three months, community reach increased drastically as was evidenced by the number of persons and families who turned up for testing. Patient engagement also increased remarkably, leading to an overall community success of the project as reported by the Presbyterian General Hospital in Moneymen.

3.4.2 Mental health among host and displaced populations

In less than two years since 2017, the number of IDPs displaced due to the Anglophone crisis has reached one million (see fig. 2), a huge demographic change that, added to the thousands of deaths and injured, has caused (and still causes) unprecedented physical and mental distress among both host and migrant populations. Mental health care in Cameroon is still at an embryonic stage, especially for the under-served populations, but such a surge in the number of people suffering from, amongst other things, unresolved trauma had immediately become obvious to medical staff. One of the most hard-hit areas has been the Meme Division in the Sout-West Region.

In response to this situation, in 2021 the Presbyterian Church in Cameroon Mental Health Unit, in collaboration with INTERSOS and funded by Stichting Vluchteling started the project “Mental Health, Psychosocial Support”. By involving ten other partner health facilities across Meme, the project aimed to provide community- and facility-based mental health care to the local population through counseling, psychotherapy, medication, group therapy, and awareness creation. The overarching goal of the project was to introduce and provide sustainable mental health care through community–facility engagement.

The project was very timidly received by the general population due mainly to the social stigma of mental illnesses in general among the locals. In order to have project messages resonate with the most

vulnerable populations who were a priority for project reach, the team decided to stop using English and, instead, engage local languages and Cameroon Pidgin English in media communication and community-level group and personal awareness creation and first–aid counseling. This could be easily done thanks to the fact that nearly half of the community health workers and project focal points were native speakers of local languages like Bafaw, Bakundu, Bakossi, and Mbonge, and some of them were also proficient in the languages of IDP groups in the area like Kenyang and Fulani. Immediately after this new communicative strategy was implemented, project staff observed a 50% increase in monthly uptake of patients being brought by their families. By the end of year two, the project had surpassed its target of 80,000 direct beneficiaries for awareness creation and more than 1,000 persons referred for treatment.

3.5 Language and health among forcibly displaced populations

The testimonies we have reported so far intersect the language-health relationship at two main junctions. First, the cases in §§3.1-3.3 stress the consequences of failures in basic communication: if people do not understand each other, how can they positively interact for health-related purposes? In these cases, the consequences are only exacerbated by the ongoing conflict in the country (§3.1). The cases reported in §3.4, instead, point to a subtler function of language, that of building trust in the message that is conveyed. Many people in the South-West and North-West Regions do understand English, but the beneficiaries of those interventions reacted in the expected way only when a language they felt closer to them was used by healthcare providers.

We realize that what we have reported in this section illustrates macroscopic issues caused by language misalignments between providers and populations or individuals. This is just the tip of an iceberg that has never been observed before, not even through quick surveys. We have no data about actual patient-provider interactions

and the number of cases of frustrated public health communication efforts would likely be extremely high if only some initial research was done on it. Achille Mbembe said that "things African" are assumed to be "residual entities, the study of which does not contribute anything to the knowledge of the world or the human condition in general" by scholars (Mbembe in Shipley et al 2010: 654). If we included displaced populations within the set of "things African", the sentence would sound euphemistic since these are not overlooked but, rather, unseen entities.

4. Towards health equity: focus on forcibly displaced populations

In this final section, we summarize the main points of discussion that emerged during the workshop (§4.1) and provide some guiding principles that we feel we can recommend for future interventions (§4.2) aiming to improve on the critical aspects we have identified so far.

4.1 Setting the discussion

It is fundamental to identify the main entities involved in the kind of interventions that might aspire to improving access to health care of forcibly displaced populations and individuals. These are:

- Communities—i.e. the beneficiaries of any interventions and at the same time the platform allowing any interventions to be implemented;
- Researchers—i.e. knowledge providers, those who establish that a certain piece of evidence is reliable;
- Actors—i.e. those who take action, such as e.g. government, NGOs, FBOs, international agencies, etc.

The leading question is: what needs to change? One key realization that workshop participants made was that the current situation of profound "health inequity" in countries like Cameroon—only more

evident when the attention is focused on forcibly displaced populations—is indisputably rooted in the state's chronic lack of resources for the generalized access to healthcare services but, at the same time, also depends on a set of cultural obstacles. We focused our discussion exclusively on the latter.

Particular situations require context-specific changes, but the most general aspect that all the participants identified as critical at this level was a "bilateral knowledge gap"—i.e. a situation in which, on the one hand, medical staff are largely unaware of the language(s) and culture(s) of the (displaced) population they work with and, on the other hand, personal health literacy[2] is low among members of displaced populations. If work is not done towards the reduction of this gap, health equity is not foreseen to improve even in the (unlikely) case of an increase in the state's resources.

Consider, for instance, the often lamented "hierarchical attitude" that medical staff is reported to have towards rural dwellers and the poor, which surfaces in, amongst other, the use of a language or of a jargon that are hardly understandable by patients, and a relative lack of respect for their lived experiences of illness (some of the cases reported in §3.1 have this overtone). In this context, even if consultations were free of charge and treatments were subsidized, patients' engagement in the healing process might still be limited, with obvious health-related consequences, as is exemplified by the case from Mali discussed above (§1.1). At the same time, the relatively pronounced lack of personal health literacy among the general population surfaces in the development of completely ungrounded

[2] "Personal health literacy is the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others. Organizational health literacy is the degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others." (Santana et al. 2021, p. S259).

beliefs, not even backed by traditional medical practices, as was seen during the COVID-19 pandemic-associated infodemic.

How to reduce this bilateral knowledge gap? The initial, generic proposal we elaborated during the workshop is to put in place a two-way communication flow. At the actors' end, we envisage training actors' personnel (mainly, medical staff) towards a "minimum language and culture package". At the community's end, the goal should be to empower communities through targeted training to community leaders and influencers and to leverage traditional centers of authority for the spread of health-related information.

4.2. The minimum language & culture package

In the literature discussing ways to make patient-provider interactions more fruitful through efforts towards concordance (i.e. a shared background—be it cultural, linguistic, or both—between patient and provider), two distinct concepts have been identified as the ideal goals: cultural competency and cultural humility. The former refers to a condition which the provider achieves through training in the basics of the culture (and language) of the target populations. The latter involves engaging with other cultures with a genuine eagerness to learn and avoiding assumptions about shared viewpoints. Cultural competency is viewed critically by practitioners because, by being necessarily limited in scope, it risks focusing on and perpetuating stereotypes about the target populations. Cultural humility, in its turn, has the main disadvantage of being a relatively vague concept implying practices towards "handling diversity" whose achievement depends mainly on individual attitudes.

These two principles are often both at the center of training efforts for providers towards concordance. Our main proposal is focused on cultural competency: make available an unprecedented amount of information on as many communities of Cameroon and nearby countries as possible, in order to create a database that can be easily used by healthcare providers (but not limited to them). In the concrete

settings of displaced populations in Cameroon, we identified several key limitations for the direct application of knowledge accumulated on the development of cultural competency in Global North contexts. The principal limitation is that the culture and language of the target population might be little known or unknown altogether, which would make it impossible to design a cultural competency training. Another limitation concerns the modalities through which existing information, if any, can successfully be delivered to providers whose work agendas are already quite loaded. Here are our proposals taking all this into consideration:

- Creating documentation hubs in every region of Cameroon containing and facilitating access to all the documents that are already available about any given language and culture found within that region. Documents of this kind include scientific articles and books, university theses, project reports, newspaper articles, etc. In order to be fully searchable, these documents must be scanned, OCR-processed, and tagged content-wise.
- It is anticipated that some areas of the country will be better covered than others: in order to fill the gaps and have progressive updates, university students in medicine, anthropology, linguistics, and geography might be involved in a country-wide research agenda through which they are supported to collect data in the least-covered areas which they can then use for their Master's or PhD theses. Students participating in this country-wide programme would get trained in specific theories and methods for data gathering and then select their topic based on the current database priorities (e.g. covering specific areas, specific languages, or specific parts of languages like medical terminology).
- In order for such contents to be actually usable for healthcare providers, they should be accessible (i) at any time (on-demand) and (ii) free of charge. Contents should be accessible

both online and through devices which, like the Internet-In-A-Box, create wireless local area networks (see §4.4).

Existing information about the cultures and languages of the populations under focus should be accompanied by "community profiles" summarizing the bodies of knowledge existing for each of the communities represented in the database. In order for cultural competency to be realistically fostered among healthcare providers without the risk of propagating stereotypes, these community profiles should remain at a general level, including information about the topography (e.g. knowing what villages are close to the patient's own may have a beneficial effect in terms of concordance), community's traditional marriage patterns (e.g. patrilineal vs matrilineal systems entail different sets of rights and duties among the members of a family), sociopolitical institutions, and history. At the level of the community language, the minimum package should aspire to provide basic linguistic information since it is expected that healthcare providers who are willing to learn the community language will do so based on their daily interactions with speakers. A minimum language package would thus include both written and multimedia materials illustrating greetings, basic vocabulary (especially body parts, traditional medical vocabulary, animals, and types of illnesses), and an overview of the main communicative styles present in the community (e.g. songs performed by specific groups of people).

4.3. Empowering communities

On the basis of prior experience accumulated mainly through PCC projects and the virALLanguages initiative (Di Carlo et al. 2022b), we think the main action that would be beneficial to the empowerment of minority or displaced communities in terms of health equity is to increase both the quantity and quality of resources that can be accessed by community members to improve their personal health literacy. This is the end goal of a complex process of collaboration between

researchers, medical staff, and individual communities whose main steps can be outlined as follows:

1. The starting point is creating a comprehensive database of both written and multimedia resources in major languages like English and French, containing the existing body of medical knowledge about the health-related topics that are known to be relevant to target communities.
2. Select community members who are proficient in English or French or both, undergo training in health literacy using the medical knowledge database.
3. The same people and/or other community members are trained in the creation of multimedia resources (e.g. designing, shooting, and editing videos using smartphones).
4. All the trainees are supported in producing resources in the local language focused on particularly relevant public health concerns.
5. Newly-produced resources are distributed within the community. This takes place both through social media and by making resources accessible in locally-installed Internet-In-A-Box devices (see §4.4).
6. Based on feedback from community members, new resources are produced according to need.
7. Traditional healing techniques and the use of medicinal herbs will also be featured in the ever-expanding repository of resources.

4.4. The Internet-In-A-Box

A key element in the proposals made in the previous section is the so-called Internet-In-A-Box (IIAB). IIAB is the union of a stand-alone, mini-computer and software that allows browsing the content of the mini-computer in ways that are similar to internet browsing. Computer storage is ever-increasing, with 4TB being now a normal capacity, which means that the amount of resources it can host is enormous.

Each IIAB creates a Wireless Local Area Network with a radius of about 20 meters and accessible by a maximum of thirty devices (smartphones, tablets, computers) at a time. IIABs are ideal in areas where grid electricity is unreliable because they can be powered through a power bank for 24 hours or more, depending on intensity of use.

The IIAB technology is currently being used by the KPAAM-CAM project (www.kpaam-cam.org) in the camp of Minawao and in some universities in Cameroon in order to facilitate users' access to select content, especially for training purposes. IIAB content is fully customizable: based on people's requests, KPAAM-CAM staff looks for or produces new content, sends it to the local IIAB administrator, who downloads it from the web and uploads it into the IIAB. This way, IIAB local users can have access to the new resource without incurring any expenses.

5. Conclusion

Filling the "bilateral knowledge gap" is a major step towards health equity through language resources, especially in contexts of forced population displacement. In order to be sustainable, this step must be based on existing research infrastructure and technology that can easily be maintained in such contexts. The proposals we have summarized here go into this direction.

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