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HIV in Madagascar
Cause for Alarm

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Sounding the alarm
Sonner l'alarme

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Résumé de l'article

Dans la continuité des travaux d'un nombre croissant de chercheurs impliqués, ce bref article attire l'attention sur certaines caractéristiques de la crise du VIH qui se prof;ile à l'horizon à Madagascar. En nous appuyant sur les données issues d'une enquête menée auprès des patients d'une clinique qui a récemment accueilli un programme de dépistage à grande échelle, nous mettons l'accent sur ce que l'on sait et ce que l'on ne sait pas sur la transmission, les effets et le traitement du VIH, ainsi que sur les raisons pour lesquelles un taux d'infection élevé parmi la clientèle de cette clinique (dont beaucoup est impliquée dans l'exploitation minière artisanale) devrait être une préoccupation majeure. En prévision du retour des campagnes de sensibilisation au VIH longtemps absentes à Madagascar, nous terminons par quelques recommandations prudentes sur ce qu'elles pourraient inclure et sur la manière dont elles pourraient être menées.

HIV in Madagascar

Cause for Alarm

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Abstract: In line with the work of a growing number of concerned researchers, this brief article draws attention to certain features of Madagascar's looming HIV crisis. Reporting on the findings of a survey conducted with patients of a clinic that has recently hosted a large-scale screening program, we focus especially on what is and is not known about the transmission, effects, and treatment of HIV, and on why an elevated infection rate among the clientele of this clinic (many of whom are involved in artisanal mining) should be of special concern. Anticipating the return of long absent awareness-raising campaigns concerning HIV in Madagascar, we close with some cautious recommendations on what they might cover and how they might be carried out.

Keywords: Madagascar; HIV; AIDS; public health; artisanal mining; awareness raising

Résumé : Dans la continuité des travaux d'un nombre croissant de chercheurs impliqués, ce bref article attire l'attention sur certaines caractéristiques de la crise du VIH qui se prof;ile à l'horizon à Madagascar. En nous appuyant sur les données issues d'une enquête menée auprès des patients d'une clinique qui a récemment accueilli un programme de dépistage à grande échelle, nous mettons l'accent sur ce que l'on sait et ce que l'on ne sait pas sur la transmission, les effets et le traitement du VIH, ainsi que sur les raisons pour lesquelles un taux d'infection élevé parmi la clientèle de cette clinique (dont beaucoup est impliquée dans l'exploitation minière artisanale) devrait être une préoccupation majeure. En prévision du retour des campagnes de sensibilisation au VIH longtemps absentes à Madagascar, nous terminons par quelques recommandations prudentes sur ce qu'elles pourraient inclure et sur la manière dont elles pourraient être menées.

Mots clés : Madagascar ; HIV ; SIDA ; santé publique ; exploitation minière artisanale : sensibilisation

Madagascar is currently experiencing an alarming rise in rates of HIV positivity. As one recent study notes:

> Between 2000 and 2022, the number of people living with HIV in Madagascar has increased by 3400% (from 2000 to 70,000), the yearly incidence of new HIV cases has increased by 650% (from 0.04 to 0.3 per 1000), and annual deaths due to AIDS have risen by approximately 3100% (from <100 to 3200). (Robinson et al. 2024)

Prospects for the future are even more concerning. Another recently published study reports that Madagascar "may be experiencing a silent transition from a concentrated to a generalized epidemic" (Alonso and Valles 2023, 1) that, if left unchecked, could result in HIV prevalence rates of 9% to 25% in the general population within 10 years. As Dr. Haja Randriantsara, executive secretary of Madagascar's *Comité national contre les IST-Sida*, explained in a recent interview, rising rates of HIV represent a "time bomb" for the country (Tétaud 2023). Among the most worrying exacerbating factors are (1) that only an estimated 8% of people living with HIV in Madagascar have been diagnosed (Raberahona et al. 2021, 30) and (2) that only 15% of those diagnosed are on antiretroviral treatment (ART) (The Global Fund 2022, 3).

Considering these numbers, it is encouraging that so many within and outside Madagascar are raising the alarm (see especially, Andrianarimanana-Köcher et al. 2024 and Geoffroy et al. 2024). The hope is that more global attention will bring the support needed to enable effective local responses. Just what these responses will look like, however, has yet to be determined. They will certainly require accessible, wide-ranging and coordinated systems of screening and treatment. However, the success of such systems will depend on more than the funds and the concern with which they are implemented. Success will depend ultimately on the willing participation of Malagasy people, something that cannot be taken for granted. As Dr. Randriantsara noted: "The problem we have is that a large part of the [Malagasy] population thinks that AIDS doesn't exist in Madagascar. This is due to the fact that, in 2016, we stopped raising awareness and promoting prevention in the mainstream media" (Tétaud 2023).

And so, while some concerned observers focus on drawing international attention to Madagascar's emerging HIV crisis, others are looking ahead to the complicated matter of "raising awareness" among those most threatened by HIV's rapid spread. This article is our modest attempt to contribute to both important efforts.

To be clear, none of us (Betombo, Raharivelo and Walsh, henceforth Snyders, Mitsou and Andrew) are specialists in global or public health research. We came together and to the work discussed here in the roundabout way of so many anthropological collaborations. We first met in 2015 when Andrew was co-teaching (with colleagues Ian Colquhoun, Alex Totomarovario, and Mingyuan Zhang) a course on collaborative research methods that involved teams of Canadian and Malagasy students working with small NGOs throughout northern Madagascar. It was at this time that Snyders and Mitsou, along with Canadian student Tyler MacIntosh, first came to know Mada Clinics, a modest project that offers free medical care to thousands of people in dozens of communities (Betombo, MacIntosh and Raharivelo 2015). Snyders, Tyler and Andrew returned in 2017, and Andrew visited again in 2018, 2019, and 2022. It was the last of these visits that set the stage for the research reported here.

Andrew's 2022 visit came toward the end of an extensive Ministry of Health-sanctioned HIV screening program run by Mada Clinics staff and volunteers Mamantsara Fardine, Adriantiana Stephano, and Jackson Long, working under the supervision of Dr. Kyle Robinson. As noted in a subsequently published report, the HIV prevalence rate of 2.94% in a sample of more than 1,000 people is considerably higher than what the Malagasy Ministry of Health has been reporting for Madagascar's general population (Robinson et al. 2024). Andrew proposed to help with Mada Clinics' analysis of and response to these findings by returning with Snyders and Mitsou to conduct a survey concerning local understandings of and attitudes towards HIV. Over eight days in June 2023 we surveyed 96 adults, most of them visitors to the project's clinic and, so, representative of the larger population tested in the screening program. We asked respondents questions intended to determine their understanding of and attitudes towards, first, COVID-19 and then, HIV. While primarily interested in what they did and did not know about HIV, we anticipated, and indeed found, that a comparison with what they knew and thought of COVID-19—the primary public health concern in the region over the previous three years—would yield interesting insights.

In the following two sections, we draw from what we had previously learned about the people served by Mada Clinics as well as the findings of our 2023 survey with two goals in mind: first, to provide further evidence of and thoughts on the alarming situation facing the project's clientele, and, second, to anticipate issues that may complicate future efforts at raising awareness about HIV in the region (and in Madagascar more generally).

Cause for Alarm

The 2022 screening program that preceded our survey produced findings that are as alarming as any we have encountered in our review of studies of HIV prevalence in Madagascar. While previous studies focusing on so-called "key populations" (summarized in Raberahona et al. 2021) have reported high rates of HIV, the study carried out by Mada Clinics focused on the general population of a single region. Located on a hilltop between valleys of small agricultural communities and the highway-side centre of northern Madagascar's artisanal sapphire mining industry, Mada Clinics serves a diverse population that includes people subsisting (though rarely exclusively) from artisanal sapphire and gold mining, farming, cattle-raising, market selling, mobile trading, and fishing. That prevalence rates among those visiting the project's clinic were notably higher among artisanal miners and those living near the region's only highway is not surprising given what we know of HIV trends elsewhere in the world (see, for example, Ferguson and Morris 2007; Tiamgne et al. 2022; Zvarivadza and Nhleko 2018). It would be a mistake, however, to imagine such people as exceptional in Madagascar and thus not well understood as representative of the country's general population.

Artisanal mining, or "low-tech, labour-intensive mineral extraction and processing" (Hilson and McQuilken 2014, 1), is far from a niche activity in Madagascar. According to recent estimates, the artisanal mining of gold, gemstones, and other minerals involves up to a million Malagasy people, making it second only to farming among the country's employers (Ndagano and Schneck 2021). Of particular significance to us is that the miners, traders, and others drawn together by this sector often inhabit communities (including the ones from which most of Mada Clinics' patients come) characterized by clear risk factors for HIV acquisition and transmission, including relatively young populations and the prevalence of transactional sex. That residents of these communities might also be figured among Madagascar's "flexible extractive subjects" (Zhu and Klein 2022, 2) who pursue uncertain livelihoods while moving among and between resource booms only expands the scope of the problem as their mobility risks widening transmission as it poses challenges for treatment. Access to healthcare services tends to be poor in the midst of the most attractive resource booms, greatly complicating efforts at ensuring that those who have tested (or will test) positive for HIV are able to access and maintain the daily regimen of treatments needed to ensure their own and others' health (Stoudmann et al. 2021).

With these concerns in mind, we planned our survey carefully, drawing from what we had learned on previous visits to pose questions intended to help Mada Clinics better understand the people they had screened. Many of our findings parallel those reported in 2022 by Madagascar's National Institute of Statistics (INSTAT 2022). For example, we found that although a great majority of those surveyed had heard of HIV, their knowledge of how it is transmitted, manifested, and might be prevented was lacking. Only a little more than half of respondents recognized that HIV can be transmitted sexually, for example, and almost a quarter claimed to know nothing at all about how it is transmitted. We also heard false understandings of transmission, including claims that HIV could be spread by flies or mosquitoes or by sharing food and clothes. Perhaps most concerning, however, was that all five of the respondents who claimed to have never heard of HIV were women under the age of 21. Although difficult to generalize from such a small sample, the trend implied here fits with our sense that the region's youngest (and young women in particular) have the most to learn about HIV. Unfortunately, only 10 of the 96 respondents we surveyed had encountered incidences of HIV being publicly discussed in recent years.

How might we account for these concerning findings? A contributing factor is doubtless the earlier noted point that national awareness raising campaigns had stopped running by 2016. As noted in a 2015 editorial in the Madagascar Tribune, these campaigns ended in the years following the national political crisis of 2009 when, among other things, international funding for them dried up (Ratsiazo 2015). Not that we should assume too much of the efficacy of awareness-raising campaigns past, present, or future. In fact, in a good number of cases, answers to our questions took a particular form, with respondents reporting first what they had heard about HIV and then that, in fact, they could not be sure that this information was true as they had never seen or known of someone who had been infected. In one case, a schoolteacher offered textbook answers to all our questions about HIV transmission and prevention and then, once the survey was done, asked in a worried tone if it was all true. None of this was surprising to Snyders and Mitsou, who know of many peers (in their 20s and 30s) and family members who hold firm to the claim that HIV does not exist. As suggested by the title of Ratsiazo's editorial—"Le Sida, dangereux ou non à Madagascar?"—doubts about HIV's existence are commonplace and entirely reasonable, especially among those who interpret any campaigns supported by political authorities as inherently political and, therefore, untrustworthy, and among those who find it difficult to reckon almost two decades' worth of

stories about AIDS' impending ravages with the reality that, as we heard often, the disease was something they had "never seen with their own eyes."

It is not only concerning that the people we surveyed do not know much about HIV. We also learned that what they do know is often dangerously outdated. For example, we were surprised to learn that so few respondents knew that HIV is treatable. On the topics of testing and treatment, 86% of our respondents indicated with certainty that there was a test for HIV but only 16% were aware that HIV can be treated. Among the great majority who were unaware of this course of treatment, many claimed to have never heard of a treatment while 36% reported with certainty that there was, in fact, *no* treatment for HIV. Testing positive for HIV leaves one "without hope," we were told by one respondent in this category. HIV "kills quickly," said another.

Our survey also considered the stigma that is widely reported to be associated with HIV in Madagascar. In the national survey mentioned earlier, respondents were presented with two hypothetical questions, answers to which were meant to indicate a respondent's (discriminatory or non-discriminatory) attitude toward people living with HIV: (1) Would you buy vegetables in the market from a seller diagnosed with HIV? and, (2) Should children diagnosed with HIV be allowed to attend school with other children? (INSTAT 2022, 294) Through this approach, it was found that 75% of women and 74% of men have discriminatory attitudes towards people living with HIV. Our approach to the matter of stigma differed in that we asked respondents more general questions intended to elicit reflections rather than yes/no answers: Is having HIV something that might bring shame to a person? Why or why not? For the sake of comparison, we asked the same questions about COVID-19. Much as in the national survey, we found that 75% of respondents (86% of women and 68% of men) indicated that HIV is something that might bring shame to a person. What we had not anticipated is that so many respondents (55%) would report the same for COVID-19. While we were aware that, around the world, many of those who contracted COVID-19, healthcare workers, and people identified as "Chinese" (Zhang 2021) suffered stigmatization during the pandemic, we were struck by how many of those we surveyed considered HIV and COVID-19 to be stigmatizing in many of the same ways—that is, in how both might lead a person to be separated from reciprocal social relations, in how both might necessitate time spent in a hospital, in how both might affect one's capacity to work, or in how both have the capacity to kill and so are, simply put, "bad things" with which no one would want to be associated. In retrospect, we wonder if any form of similarly disruptive and

contagious illness might have been perceived similarly, a point we intend to pursue through further research concerning stigma and health in which we will attend to more than just the distinctive features and means of transmission of one or another transmissible disease.

The worrying findings revealed by our survey do not stop there. Consider the implications of the fact that over 70% of respondents left school (a primary place of exposure to information about HIV) before the age of 12, that 38% of those from communities previously identified as having especially high rates of HIV infection intend to move in the coming year, or that 47% of the people we surveyed had chosen to not get vaccinated against COVID-19, citing everything from a fear of needles to concerns about the vaccine making them sick to mistrust of the government agencies overseeing the vaccination program. Maybe most telling of all, however, is the fact that a great majority of respondents replied in the same way when asked about concerns around access to healthcare. "There are times when you might want to get treated for something but do not have the money," said one woman, echoing the concerns of many others. "It comes down to money," said another woman, "especially for people living in rural areas who have no way to earn money and who may already be struggling to feed themselves through the rainy season." More than half of respondents invoked the Malagasy term for money, *vola*, in describing their frustration with Madagascar's healthcare system, several answering with nothing more than this one word—money, *vola*—and a silent stare. The consistency of these responses serves as an important indicator of the broader structural and economic conditions under which this crisis is unfolding.

To be clear, respondents complaining about the cost of healthcare were not referring to services accessed at the Mada Clinics clinic, where treatment and medicine are free. Mada Clinics can only do so much, however, with its limited funding, staff, and facilities. The one silver lining, perhaps, is that what Mada Clinics does have is an excellent reputation among those we surveyed. That the great majority of visitors to the clinic consented to participate in the screening program and our survey is telling, as is the fact that 28% of those we surveyed were visiting the project's clinic for the first time, drawn, we were frequently told, not simply by the prospect of a free consultation but by the reported accuracy of information and efficacy of treatments to be had at the clinic. Looking ahead to the forthcoming work demanded by the findings outlined here, we expect that Mada Clinics' reputation for being trustworthy will be key.

Looking Ahead

Having reported our findings to collaborators at Mada Clinics, we are now looking ahead to how we might support their and others' response to Madagascar's emerging HIV crisis. Although not qualified to offer much advice on how needed screening and treatment programs might be rolled out, our past experiences and recent findings allow us to offer some thoughts on the awareness-raising campaigns that will doubtless accompany such rollouts. As Snyders and Mitsou recall, such campaigns (commonly referred to using the French term *sensibilisation*) were once common in Madagascar, spreading news of the dangers of HIV and promoting the mantra of safe sex through posters, community meetings, classroom activities, advertisements on TV and radio, popular songs, and so on, some of them sponsored by government and some by NGOs. This was a time when emerging university-age leaders like them might even find paid work as peer educators, expected to communicate official messaging on HIV to their contemporaries. They also recall how ineffective these campaigns often seemed. While attending school in the west coast city of Mahajanga, for example, Mitsou recalls one advertising campaign in which people living with HIV (and their families) appeared on television to tell their stories in a well-intended effort at humanizing and destigmatizing the disease. She also recalls how friends and neighbours responded to these ads with claims that HIV and AIDS did not exist and that, in fact, the storytellers were actors paid by the government to convince young people to use condoms. For his part, Snyders recalls how he and his university classmates in the northern city of Antsiranana were drawn to awareness-raising events mostly by the promise of free soft drinks, later using the lubricated condoms they had been given to clean the screens of their mobile phones and laptops.

Given these memories and what we learned about how little the older people we surveyed—people who had been the targets of past awareness-raising campaigns—actually knew about HIV, we recognize a key dilemma in the work ahead: How might we, and others, productively raise the alarm about HIV among people who are no strangers to the din of public health messaging, a din that has recently become even more muddled by campaigns around COVID-19? Since there is no easy way out of this dilemma we close with a few thoughts on how it might be navigated.

To begin with the obvious, it would be wrong to imagine any new efforts at raising awareness about HIV in Madagascar as entirely new. Ignoring past campaigns around HIV, COVID-19, measles, cholera, plague, or other public

health emergencies risks not only remaking past mistakes but reinforcing the doubts that may prevail in the people targeted by such campaigns. Put another way, campaign designers will need to consider how and why the seemingly clear, verifiable, and essential messages they intend to communicate might be received by some as ambiguous, untrustworthy and/or irrelevant. It is certainly not because of some inadequacy in target audiences. More likely is that people have good reasons for scrutinizing, doubting, and/or ignoring what they are being told (Fassin 2021). As Andrew has learned over years of listening to artisanal miners speculate about foreigners' *real* (that is, intentionally undisclosed) interests in locally mined sapphires and conservation areas (Walsh 2012), questioning what powerful others assure you is true is perfectly reasonable, and sometimes necessary, when operating in contexts of great uncertainty that foster healthy skepticism. Given that future awareness-raising discourse will inevitably emanate from positions of relative power, there is good reason to proceed with caution.

Calling for a cautious approach that prioritizes further research on and consideration of the perspectives and motivations of people at immediate risk might seem a weak response to an alarming problem. Time is precious. And so, if awareness-raising campaigns are to proceed, as they surely will, we have some additional, actionable suggestions to make based on what we learned from our survey.

To begin, we think it important that coming campaigns focus not only on how HIV can be prevented and how it is spread but also on how it can be treated and on how treatments are (meant to be) freely available through public healthcare service providers across Madagascar. We also recommend avoiding the sort of awareness-raising campaigns that respondents commonly encountered during the pandemic—an approach some termed "megaphone," referring to its primary means of communication. Although we did not ask everyone about the relative merits of this or other awareness-raising methods in our survey, several respondents volunteered that public health messaging that imitates political campaigning by blasting messages from loudspeakers atop moving vehicles is particularly alienating, especially when delivered by strangers in a dialect of Malagasy that is not commonly spoken in the region.

What alternative strategies for raising awareness exist? In anticipation of this question, we asked survey respondents about their participation in civic or mutual-aid associations—associations of women, parents, neighbours, people hailing from the same region, miners, and so on. To us, the most relevant

feature of these associations for the work ahead is how effective they are at getting things done in uncertain times, able to engage their members in matters of urgent necessity (as when members of regional associations fund the homeward transportation of a corpse) and in projects intended to serve the public good (as when members of women's associations fund the construction of national monuments around which communities can celebrate Malagasy Independence). Given that 79% of our respondents were members of one or another such association, one of our recommendations to Mada Clinics is that they try to involve these associations and their memberships in the work ahead.

Of course, we cannot be sure of what will or will not work as Mada Clinics and others in a growing chorus of concern turn from calling for action to the actions that will hopefully follow. We plan to stay involved, however. To borrow a Malagasy turn of phrase, "it is like a lie" (that is, improbable to the point of being unbelievable) that the three of us ended up returning to a project we first visited together in 2015 in order to carry out the work described here. Considering what we have learned in light of what we have known for some time, we feel compelled to try to do more than just raise the alarm.

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