

Case Discussion

Understanding Power Relationships: Commentary on Wurr C and Cooney L (2014) 'Ethical Dilemmas in Population-Level Treatment of Lead Poisoning in Zamfara State, Nigeria'

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After 4 years of relief activities, it is difficult to keep managing the lead poisoning epidemic in northern Nigeria as an emergency situation, while it appears clearly to be a more complex, widespread and chronic public health issue than anticipated. Making the continuing treatment of children conditional upon commitments from impacted families to adhere to safe mining practices is unlikely to bring about any long-term benefit. This is because such commitment is ultimately not in the hands of the victims or their families. Demands for better collaboration from the affected communities should take into account local power imbalances and broader networks of human exploitation, which are the ultimate causes of the outbreak.

Wurr and Cooney (2014) write from the perspective of MSF (Médecins Sans Frontières, Doctors Without Borders) to expose a most distressing ethical dilemma created by the continuing exposure of children to massive lead contamination in Zamfara State, Nigeria. The outbreak was recognized in 2010 after local farming communities became increasingly engaged in the artisanal mining of lead-rich gold deposits. As a consequence of domestic exposure to ore processing, hundreds of children died of acute lead poisoning, while thousands are left with permanent neurological disabilities. A geographically limited survey showed that childhood lead poisoning is widespread in many villages of Zamfara state (Lo *et al.*, 2012). MSF's medical intervention combined with environmental decontamination and the promotion of safer mining practices was at first successful and probably prevented many children's deaths. Unfortunately, the relevance of perpetuating an emergency-type public health intervention is

becoming disputable, when at the same time hazardous mining practices continue and some families see the long-term treatment of their children as an unnecessary burden. Simply put, the dilemma faced by MSF medical teams is to choose between two equally daunting solutions. The first possibility would be to extend the lead chelation programme, with the practical risk of futility as domestic pollution is not remediated. The second option would be to withdraw medical support from Zamfara, thereby leaving no hope of cure for those who could still benefit from MSF's intervention. On closer examination, the core of the dilemma is probably more complex. Personal commitments by front-line MSF staff to rescue identifiable victims collide with broader social circumstances, a classical source of moral difficulties in humanitarian practice. The main point is that Zamfara villages, like other communities, are stratified along different local interests and evolve within a cryptic network of power relationships, where

gold and children lives are likely to be valued differently by different actors. Starting from these premises, we can perhaps better approach the dilemma exposed by Wurr and Cooney. First, we should remember that MSF's initial engagement in response to the environmental emergency of Zamfara was accidental and focused on seven identifiable villages where children deaths were first reported. What presented at the time as an emergency epidemic situation appears nowadays as a much more protracted problem affecting tens if not hundreds of villages with many more unidentified victims. While priority has naturally been given to small children as the most critically identifiable patients, lead intoxication also affects older children, adult workers, pregnant women and breastfed infants (Plumlee *et al.*, 2013). Furthermore, the usual processing of gold ore entails other hazards that are likely to be concurrent to lead intoxication, for example, exposure to mercury or other heavy metals. MSF has thus made pragmatic choices by giving priority to the care of those children aged less than 5 years, with critical blood lead levels who came from villages that could be accessed or remediated in Zamfara state. While an emergency intervention was initially justified, the optimal management of a public health crisis of such magnitude would require a comprehensive environmental and public health programme with broad geographical coverage and attention to all exposed persons regardless of their age. This is obviously beyond the capacity of MSF. After 4 years into the outbreak, one would expect the Nigerian authorities to be ready to address the broader public health consequences and the regulatory issues linked to small-scale mining.

Secondly, in terms of context analysis, it might be useful to distinguish the rationale of families who refuse long-term chelation therapy, from more collective reasons to disregard safer mining practices. Those who influence the two types of decisions might be in different social positions or be driven by different motives. MSF has been proactive in health and community education to address the misperception by some families that monthly chelation and blood testing are no longer needed once the condition of their children has improved. The pathways leading from unsafe gold extraction to future children disabilities, and ultimately to dramatic consequences for the survival of entire communities are not so obvious to grasp by lay people. In addition, the historical and cultural environment is likely to make the matter of health education particularly difficult. Public health campaigns initiated from foreign organizations could understandably be seen with suspicion in northern Nigeria, where the memory

of the trovafloxacin (Trovan) trial is still vivid (Ezeome and Simon, 2010), and where the global polio eradication programme has seen recent setbacks. MSF's withdrawal could thus be justified on the grounds that (i) the organization has fulfilled its commitment to respond to an emergency, (ii) resources of the organization risk to be wasted in futile activities with doubtful impact and (iii) all has been reasonably made to inform the community and individuals about risks and benefits.

But this should not be the end of the story for MSF. After 4 years of presence in Zamfara, MSF has brought to light the dramatic consequences of practices which have deeper roots in economic exploitation. Unwittingly, the MSF narrative fundamentally challenges a system of global economy that led a farming community to abandon its traditional livelihood and to engage into unsecure and highly dangerous mining practices (Pringle and Cole, 2012). In the long term, it is unlikely that safe mining practices could be convincingly implemented or sustained in a context where gold production is the only path to escape poverty, and where most of small-scale gold mining is illegal. In some villages, conversion from farming to mining as a livelihood has ultimately caused the death of 30–40% of young children, produced irreversible neurocognitive deficits among survivors, and an extra burden of chronic diseases among adults. This is not a natural but a man-made disaster, with dramatic long-term consequences for entire communities. Artisanal gold mining in northern Nigeria relies on local exploitation and illegal export channels that are partly identified and which ultimately benefit European or Middle-East markets (Katz, 2010). Political commitment and legal solutions are the only way to create disincentives to unsafe artisanal mining. Nigeria has ratified the Convention on the Right of the Child in 1991, and this is meant to include the right for children to live without preventable disabilities (Human Rights Watch, 2011).

Thus, the question is not so much if MSF's intervention is perpetuating unsafe mining practices. Making children's treatment conditional upon adherence to safe mining practices would put the onus of responsibility at the wrong place, ignoring the power imbalances between affected families and those who ultimately benefit from illegal gold trade. Whatever the future of MSF's action in Zamfara is, public exposure of the situation is already paying tribute to victims of an unfair system of resources exploitation. Even more than diseases, conflicts or famines, future environmental disasters are inevitably bound to bring MSF closer to examining social, environmental and developmental issues. When withdrawal becomes the only reasonable

solution, abandonment of obligations to medical care naturally entails a moral duty to speak out.

Conflict of Interest

The author of this commentary (P.C.) belongs to the same organization (MSF) as Chloë Wurr and Lauren Cooney, the authors of the original Case Discussion. However, P.C. has never been involved in any aspect of the MSF operation in Zamfara State. Viewpoints expressed in this Commentary are strictly personal and do not necessarily represent MSF's position.

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