

International structures needed for equitable access to DNA identification after disaster

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The April 2013 collapse of the Rana Plaza Factory Building in Bangladesh, in which more than 1,130 people were killed, is only the latest in a long line of events that has made plain the plight of the families whose loved ones go missing after conflict and disaster.

In a new paper published in *Science*, Carnegie Mellon University and the University of Pittsburgh ethics, policy and human rights experts argue that international structures are needed to promote more equal access to [forensic identification](#) technologies, ensure their fair and [efficient use](#), and provide uniform protections to participants following large-scale conflict and disaster.

"After a conflict or a disaster, if remains are burned, mangled, decayed or comingled, the only way to identify them may be by using DNA, said lead author Alex John London, professor of philosophy in CMU's Dietrich College of Humanities and Social Sciences and director of the university's Center for Ethics and Policy. "In low- and middle-income settings, such technology may not be available, or not available in sufficient capacity to handle the surge in demand associated with a mass casualty event. Not being able to identify a missing loved one can have emotional, social, and [economic implications](#) that can be most dire for those who are already the most vulnerable."

According to media reports, hundreds of Rana Plaza victims' families still have not received the bodies of their loved ones or the death benefits that accrue for survivors because the government has not been able to

formally identify all of the victims. This situation, which has led to demonstrations against the government by families and allegations of corruption and malfeasance, has arisen, in part, because the main forensic laboratory in the country does not have enough capacity to handle so many cases at once.

"Humanitarian organizations and governments increasingly recognize the importance of timely identification of remains and, ideally, their return to families for proper burial. Unfortunately, though, access to the resources and technologies to perform these acts is significantly restricted by the willingness and ability of governmental and non-governmental organizations to pay for them," said co-author Jay Aronson, associate professor of science, technology, and society at CMU and director of the university's Center for Human Rights Science. "This means that some victims of conflict and disaster have been identified (e.g., in Bosnia or in the aftermath of the 9/11 World Trade Center attacks), while others have not (e.g., in Rwanda or Haiti). The 2004 Indian Ocean Tsunami illustrates the inequities: international efforts to identify the remains of victims were undertaken in Thailand, where there was a high density of Western tourists, but not in Sri Lanka, Indonesia, or other affected areas."

According to co-author Lisa S. Parker, associate professor of human genetics at Pitt's Graduate School of Public Health and director of Pitt's Master of Arts in Bioethics Program, "Because confirmation of death is tied to social, legal, and economic rights, we argue that there should be a mechanism to extend access to forensic identification to communities that might not otherwise be able to afford it, or whose capacity to carry it out might be overwhelmed after a disaster."

The authors advocate creating international structures, which could take many forms ranging from a single international institution to a decentralized network of agencies, to promote more equitable access to

forensic identification. They outline four main reasons that international structures are needed. First, such structures would address humanitarian and human rights goals by granting access to forensic identification technology on terms other than the ability to pay. Second, the structures would quickly and efficiently implement standardized procedures and have capacity to cope with a sharp increase in demand.

Third, international structures are needed to prevent material and information gathered from being used for any purpose not directly related to identifying the missing. Expanding access to forensic identification will not advance humanitarian and social goals unless the participants are confident that those carrying out the identification process have the mandate and the authority to protect their rights and welfare.

And finally, to ensure that forensic identification advances [human rights](#) goals, international structures must have explicit mechanisms to facilitate using identification information as evidence in legal proceedings against those who are responsible for the death or disappearance of the missing - while ensuring that the privacy of donors is not compromised.

The recommendation to formalize international structures in order to improve DNA identification following conflicts and disasters is one result of the \$1.2 million National Institutes of Health (NIH) grant awarded to Aronson to analyze ethical and policy problems associated with the identification process.

More information: "DNA Identification after Conflict or Disaster," by A.J. London et al *Science*, 2013.

Provided by Carnegie Mellon University

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