Kuwaiti citizens: Register your genes…or else

On Friday June 26, an ISIS suicide bomber detonated an explosive at a mosque in Kuwait City, killing 25 killed 200 injured outside a Kuwait City mosque. In the wake of the attack, the Kuwaiti government has passed a law requiring every citizen and foreign national in the country to submit to genetic testing. People who refuse to register must pay a $33,000 fine or face a year of jail time.

This is the first time a country has mandated a universal genetic database for its citizens. While profiling convicted and suspected criminals is marginally accepted, requiring DNA samples from people outside of the criminal justice system. One writer compared the situation to the film *Minority Report*, in which geneticists help prevent crime by tracking people who have a genetic profile indicating they are at high risk of committing crimes.

Human Rights Watch's Sarah Leah Whitson, Middle East director, says this fundamentally violates the Kuwaiti people's right to personal privacy:

> Many measures could potentially be useful in protecting against terrorist attacks, but potential usefulness is not enough to justify a massive infringement on human rights. I suppose videotaping every user of a public toilet could be useful too, but that kind of intrusion is hardly necessary or proportionate, and neither is compulsory DNA testing.

But Kuwait's ministers say that the need the tool to help make arrests and to better investigate for future attacks. The government has allocated $400 million to sample and compile the database and plan to finish by Sept. 2016

The ethical ramificatons are extreme. By taking these samples, the government will, in essence, own the DNA of the 4 million Kuwaiti citizens and the foreign nationals who live and work there. The ministers have not been forth coming with how they plan to access and use the data, although given the rather short time in which the law was passed, they may not yet know the specifics.

And at least in the case of the June 26 bombing, the justification of identifying DNA as powerful evidence leading to arrest may be questioned because the perpetrator was a suicide bomber. 29 people have will be tried in connection with the bombing. Of course, in the case of identifying victims, a DNA database would be very helpful, but that is not the intent of this law.

So is the crime prevention potential of surveying all citizens versus surveying some subset like convicted criminals worthwhile? And how does that compare to the rate of false-positives, where DNA evidence might identify and implicate an innocent person?

Many other countries keep DNA of people who've been convicted of a crime. In the U.S., law enforcement maintains a registry of people who've been convicted or suspected of involvement in crime, on a state by state basis. Many people find the collection of DNA from suspects objectionable because in some circumstances its done without explicit consent. Others think that if someone is not convicted, their DNA

should be removed from the database.

Another factor to consider when evaluating the usefulness of a universal database compared to one that only includes convicted or all suspected persons is the populations and recidivism rate. Does the additional information provided by the general population confer great enough crime-fighting benefit over the criminal and suspected database? This will be the first opportunity we have to get the data needed to answer the question.

After the fact, of course, DNA is an indisputably vital investigative tool. And it's a shame we don't use to its full effect. There are hundreds of thousands of untested rape kits that remain on shelves potentially liking rapists to DNA banks. At the same time, 18 people were exonerated by DNA evidence in 2013 and it's likely more innocent people remain in jail.

In some ways this dichotomy between the unknown predictive value versus the indisputable forensic value of genetics in criminal justice parallels the way genetics can be used in health: it provides certain, actionable information retroactively after a cancer is diagnosed or a crime has been committed, but can't tell us nearly as much about what might happen.

That is also of issue in Kuwait, where the government has said little to nothing regarding the organization and security of the database, who will lawfully have access to it and in what situations they will be allowed to access it. Does a crime need be committed before the database can be accessed? And what will they do to protect the data? A database of all citizens genetic information may be a target for terrorism as well as a solution.

On the other hand, many of us are quite willing to accept the risk of security breech when it comes to DNA sampling for health, ancestry and even research purposes, as evidenced by the 1 million people direct-to-consumer genetics company 23andMe reports to have sequenced. So maybe we are not as concerned with protecting our genetic information as we could or should be. Ancestory.com has released identity data to police in at least one case. There was a warrant.

Regardless, a month seems like a rather short timeframe for proper discussion of these ethical issues, even given the extreme situation the Kuwait finds itself in. Perhaps the Kuwaiti public will find they do not mind giving up this central part of themselves in hopes of better protection from terrorism. But I suggest they deserve the chance to discuss it with their parliamentary representatives first.

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