

ETHICAL AND SOCIAL CONSIDERATIONS FOR IMPLEMENTATION OF RAPID DNA

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With the *Rapid DNA Act of 2017*, professional guidelines are developing to enable rapid DNA instruments to supplement traditional forensic DNA analysis, particularly for screening arrestees and detainees, and also for missing persons, disaster victim identification (DVI), and border security screening. While rapid DNA technologies offer significant advantages in comparison with traditional DNA analysis, their implementation is not without challenges. The potential second-order effects of rapid DNA technologies must be carefully considered in light of the purpose of the testing (kinship vs. offender genotyping), and the context in which the technology is used (e.g., booking stations, border security, migrant family reunification, missing persons, DVI). We highlight the (1) security issues that accompany the use of DNA technology by non-experts; (2) privacy issues with DNA-based information about biological relationships; and (3) challenges with consenting for voluntary samples. In addition, we explore the social implications of the implementation of rapid DNA, in particular (1) its potential effect on the civil liberties of citizens and non-citizens; (2) the possibility of coercion for consent; and (3) the consequences of the geneticization of the concept of family. Finally, we discuss the ethical and social advantages of rapid DNA over traditional technologies in terms of the (1) expedition of analysis; (2) exhaustion of DNA specimens; and (3) potential use as a screening tool for non-experts, outside of law enforcement and government authorities. Rapid DNA is a powerful tool for DNA analysis that could expedite processes and provide a secondary means of DNA analysis outside of forensic DNA laboratories. We encourage consideration of these ethical and social parameters when developing professional guidelines for rapid DNA in order to ensure that its use contributes to, rather than detracts from, the public good.