NDIS & CODIS PROGRAM UPDATE

Barry Brown, Ph.D.

Forensic Science Systems Unit, FBI Laboratory, Washington, DC



The Federal Bureau of Investigation introduced a new tool for fighting violent crime: the National DNA Index System (NDIS), in October 1999. NDIS is a collaborative effort among federal, state, and local law enforcement agencies. NDIS enables public forensic laboratories throughout the United States to exchange and compare DNA profiles electronically, thereby linking unsolved serial violent crimes to each other and to known sex offenders. As of June 1998, all fifty states have passed legislation requiring convicted offenders to provide samples for DNA databasing. These states have collected over 700,000 DNA samples and analyzed more than 300,000. All fifty states have been invited to participate in NDIS and it is expected that all states will contribute both their convicted offender and forensic DNA profiles to NDIS.

As of September 1999, 18 states and one Federal laboratory have completed all procedures to participate in NDIS and these are: California, Connecticut, the FBI, Florida, Georgia, Illinois, Kentucky, Maine, Maryland, Minnesota, Missouri, North Carolina, Oregon, Pennsylvania, South Carolina, Texas, Utah, Virginia and Wisconsin. An additional 17 states and one additional Federal laboratory (the U.S. Army Crime Laboratory) have initiated paperwork to participate in NDIS.

The FBI Laboratory's Combined DNA Index System (CODIS), which began as a pilot project in 1990, serving fourteen state and local DNA laboratories, blends forensic science and computer technology into an effective tool for solving violent crimes. CODIS uses two indexes to generate investigative leads in crimes where biological evidence is recovered from the crime scene. The Convicted Offender Index contains DNA profiles of individuals convicted of felony sex offenses (and other violent crimes). The Forensic Index contains DNA profiles developed from crime scene evidence, such as semen stains or blood. CODIS utilizes computer software to automatically search these indexes for matching DNA profiles.

As of September 1999, CODIS is installed in over 100 criminal justice laboratories in forty-four states and the District of Columbia. Approximately four hundred forensic examiners representing 80 laboratories throughout the US have received CODIS training. The FBI provides CODIS software, together with installation, training, and user support, free of charge to any state and local law enforcement laboratories performing DNA analysis. In addition, the FBI continues to fund new software development initiatives thereby enhancing CODIS software capabilities. A new version of CODIS is currently under development and is scheduled for release in mid-2000.

Ultimately, the number of crimes it helps to solve will measure the success of the CODIS program and the caliber of assistance it provides to law enforcement and laboratory personnel. CODIS's primary metric, the "Investigation Aided," is defined as a case/investigation that CODIS assisted through a "hit" (a match produced by CODIS that identifies a potential suspect or links violent crimes together which would not otherwise have been developed). To date, CODIS has produced more than 400 hits that have aided hundreds of investigations.