A109 The Identify Indiana Initiative: A Collaborative Approach to Reinvestigating Cold Cases of Human Remains in the State of Indiana

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The goals of this presentation are for attendees to appreciate: (1) how these investigations require cooperation between multiple agencies; (2) how new technologies can be employed to further identification efforts; and, (3) the challenges faced in these reinvestigations within the context of an elected coroner system.

This presentation will impact the forensic science community by serving as an introduction to the coordination of multiple agencies and resources required for the reinvestigation of cold cases for those who may soon embark on a similar mission.

The Identify Indiana Initiative grew from the proposition that many unidentified cold cases in Indiana could benefit from the application of new technologies, such as missing persons databases, DNA profiling, and isotope analysis. A team of volunteer specialists, including forensic anthropologists, law enforcement personnel, DNA laboratory technicians, coroners, and National Missing Persons Data System (NamUs) administrators, was assembled to reopen these cases, which date back to 1974. The first step in this process was inventorying the unidentified cases in the state. Locating some of the unidentified individuals was straightforward since they are curated at the University of Indianapolis, while others require exhumation from cemeteries across the state. Osteological analyses were conducted on the exhumed remains that were buried before forensic anthropologists were practicing in the state. The information from the skeletal examination was combined with data from law enforcement records to create an entry in the Unidentified Persons section of the NamUs database. Skeletal samples were then collected for molecular investigations, including DNA profile generation and isotope analysis.

While locating the unidentified skeletal cases and implementing new technologies to aid in identification may seem rather straightforward, the team faces a number of practical challenges. For example, Indiana is a coroner system state, and the 92 coroners (who are usually not formally trained in either law enforcement or forensic science) are elected via the political process to six-year terms. According to state law, the coroner has the ultimate authority over found human remains and must therefore give advance permission for exhumations, analyses, database entry, and the release of case information to the press or public; however, many coroners operate in rural counties without formal office or morgue space in which files or evidence can be curated long-term. With the inevitable turnover in coroners over time, the team has encountered difficulty in obtaining basic case information and associating different case numbers from the various agencies that may have been involved in an investigation. This problem extends to the acquisition of family reference DNA samples; missing law enforcement reports may have included the names and addresses of possible relatives that were interviewed in missing persons cases. The ability to locate case files and case numbers is an instrumental step in furthering the identification of these individuals.

The collaboration process, utilization of new technologies, and challenges faced by the team will be discussed within the context of several examples in which unidentified remains were exhumed and reanalyzed for this initiative.

Additionally, stable isotope analysis has been integrated into the Initiative to determine whether unidentified individuals are likely local or non-local to the location where their remains were discovered. Stable isotope analysis on one of these cases demonstrated that a deceased female, discovered in 1992 in central Indiana, was most likely from the Southwest (Arizona or New Mexico) but may have spent several months in western Indiana prior to her death. This information serves as an investigative tool to aid in narrowing search parameters for missing persons cases. As the scientific tools and technologies of forensic investigation evolve, unidentified human remains should be reinvestigated to increase the chance of identification.

Unidentified Individuals, NamUs, Isotopes