



## A98 Quantifying Missing Migrant Antemortem Data and Their Identification Significance

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**Learning Overview:** After attending this presentation, attendees will better understand the complexities of identifying remains of missing migrants from poor, primarily rural, underserved communities in the Central America-Mexico-United States migrant corridor, as well as be better informed regarding the probability of obtaining significant antemortem data for achieving identifications in these cases.

**Impact on the Forensic Science Community:** This presentation will impact the forensic science community by providing quantified analysis of antemortem data on missing migrants from the Central America-Mexico-United States migrant corridor that can aid practitioners in the design of effective antemortem data collection tools, help them better understand the value of an antemortem feature coincidence, and inform their assessment of the prevalence of different methods as part of a multidisciplinary identification.

This research project works to further define and illuminate the value of antemortem data in the multidisciplinary forensic investigation process through a case data-based analysis. The research introduced in this presentation seeks to further delineate types of antemortem data useful in forensic investigations into missing migrant cases in the Central America-Mexico-US migration corridor, examining what can be considered significant antemortem data in this regional context by evaluating which types of antemortem data have been forensically significant in supporting identifications for a multi-year, transnational project, the Border Project (Proyecto Frontera).

The Border Project is an initiative that aims to create a transnational mechanism for exchanging forensic information on missing persons and unidentified remains to significantly improve both the identification of missing migrants among unidentified remains in the region and the response of governments to families searching for missing migrant relatives. In this presentation, an analysis of the aggregated dataset from these cases will be presented, encompassing investigations launched since 2010 into missing migrant cases dating from 2000 through to the present. This dataset includes more than 1,300 cases of missing migrants coming from multiple countries of origin in Central America, as well as Mexico, who have gone missing in Mexico and the United States.

When working with cases of human rights violations and missing migrants in Latin America, antemortem data can tend to be limited in terms of formal, recorded documentation, such as medical records, dental records, and fingerprints, due to multiple socioeconomic factors. The vast majority of these cases do not have official medical or dental records, as missing individuals are more likely to have received such care in highly localized circumstances in which no records may be available or are not retained. Thus, antemortem data in the majority of these cases are based on the memories of relatives of the missing person. Nonetheless, such antemortem data have been shown to be highly useful in Border Project missing migrant cases, both in the investigation process and as a tool for exclusions of inconclusive initial genetic matches. This presentation will introduce the context and challenges of reaching identifications in this corridor and will describe each of the antemortem features evaluated in the quantitative analysis. The conclusions provided in this presentation will highlight the antemortem data types that have proven to be most significant in the investigations to date and discuss the evaluation of their level of significance. This presentation will also present differences in antemortem data significance between different countries of missing person case origin in Central America and Mexico, which also may change over time, due to factors such as the local availability of specific dental restorations or the prevalence of tattoos.

A multidisciplinary, integrated approach to the identification of remains is always important, as each context in which a person goes missing—each country, time period, incident, etc.—can affect which elements are more available or more important to prioritize in an investigation. In different circumstances, different factors in reaching an identification may take a lead role in the investigation, including genetics, fingerprints, and antemortem data. Quantifying antemortem data and their forensic significance in reaching identifications for a specific regional context helps to define the leading data factors that can aid in the identification process, thereby allowing more time and resources to be dedicated to those areas of data collection. Moreover, better understandings of the antemortem data that hold the greatest significance in missing migrants case investigations can help to define effective public policy and support establishing protocols and tools that focus on collection of the most impactful information for investigators.

### Antemortem, Quantification, Missing Migrants