

**Epidemiology of Ambulance Calls in Rural Armenia**  
Armenia  
Colgate University  
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Summary

I traveled to Armenia for a 10-week research project which aimed to establish the first-ever statistical description of ambulance calls in rural Armenia. Emergency Medical Services (EMS) are critical for any national healthcare system, and robust ambulance systems have been shown to prevent cases of morbidity and mortality in a population. This project took the first step toward improving EMS systems in Armenia by analyzing the frequency and pattern of ambulance usage throughout the nation.

Project Description

As a licensed volunteer firefighter/EMT in the state of N.Y., I have an insider's understanding of EMS. I know that rapid, high-quality health interventions can mean the difference between life and death in emergency situations. Additionally, I'm interested in contributing to public health research on the impacts of world events on population health — war, conflict, and global disease all have direct and indirect impacts on all levels of healthcare systems, particularly in low- and middle-income countries (LMICs). I chose Armenia as my research site for three main reasons. First, Armenia is an LMIC that has faced several important events in recent years: a major regime change in 2018, a global pandemic (SARS-CoV-2) from 2020-present, and a brutal 44-day war initiated by the Republic of Azerbaijan in 2020, which killed roughly 4,000 and displaced over 90,000 Armenian citizens. Second, very little research has been done to describe emergency medicine in Armenia, and any studies that have been published largely focus on health systems within the country's capital, Yerevan. Therefore, there is a clear need for research on EMS in rural Armenia. Lastly, I chose Armenia because I am fluent in the language and have had significant experience in rural Armenia in previous years. Both of these factors contributed immensely to the project's success.

The plan for this project has changed significantly from the initial proposal. Originally, I planned to travel to Armenia to digitize three years of pre-existing paper records in two rural regions and outline a proposal to implement a digital system to record future calls. When I met with officials from the Ministry of Health of the Republic of Armenia at the start of the project, it was revealed that a digital database of ambulance calls already exists, and, though the database is not open to the public, de-identified patient data could be extracted for research purposes. This revelation both simplified and complicated the project — there was no longer a need for me to make my own database from paper records, so I decided to significantly expand the scope of the project to analyze data from the past six and a half years for all 10 regions plus the nation's capital, Yerevan. Similar to the goals indicated in the original proposal, I was able to travel to five ambulance stations to meet with local administrators, interact with medical staff, and collect prospective data by doing ride-alongs on emergency calls.

Since this project is foundational to the task of reforming and improving the EMS systems in Armenia, there are many opportunities to continue working on this issue. I have elected to continue the work I began over the summer by drafting and submitting a research manuscript for publication in an international journal.

### Reflection

Peace is the ultimate goal of any humanitarian work. Peace means access to high-quality healthcare. Peace means access to a safe environment for living, working, and pursuing education. Peace is a fundamental human right that should be protected at all costs for everyone, everywhere, regardless of personal identity. Peace should not be treated as a privilege or a luxury, although it so often is in the reality of the present-day. I believe in Kathryn Davis' mission of investing in and working toward achieving peace throughout the world, and I hope to see the positive effects of my own project, which ideally will lay the groundwork for EMS reform in Armenia, in the next few years.

This project was a challenge in many ways, but in the end my work in Armenia inspired me to continue pursuing public health research in the future, and has reaffirmed my aspiration to pursue a career in medicine. I've learned that, though real-life issues are difficult to solve in one project (or even a hundred), there will almost always be at least one step, however small, that someone can take toward achieving a final end goal. It's hard not to shy away from what looks like an endless uphill battle, and this project taught me that just taking the first, small step gets you closer to something bigger.

### Personal Statement

My project for peace aims to lay the groundwork for emergency medical systems (EMS) reform in Armenia, as it is the first-ever data-driven study describing ambulance usage throughout the country. Through this project I've learned the value of taking the first step, something realistic and feasible, toward achieving far more substantial solutions in the future.

- Ani Arzoumanian