Raising Awareness for First Aid and CPR

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A Case Study – Colectiv

On October 30, 2015, metalcore band “Goodbye to Gravity” celebrated the release of their new album by hosting a concert at the Colectiv nightclub in Bucharest, Romania. The band had a reputation for its heavy use of pyrotechnics to augment the atmosphere of their concerts, a sight which many wanted to experience firsthand. As many as five hundred people – mostly teenagers – crammed themselves into the club’s narrow interior, with no choice but to fill every possible inch of space between them as more and more excited club-goers pushed themselves inside. Mesmerized by the band’s pyrotechnic spectacle, few had noticed that a pillar of acoustic foam flared to life from the ignition of a nearby firework. The exact details of what happened afterwards are unknown, because those who witnessed it did not survive to tell the tale. What is known is that within a matter of seconds, the whole club was engulfed in flames as the fire swallowed every bit of acoustic foam which lined the walls of the enclosure.

Although first responders made it to the scene relatively early (only for Romanian standards), their numbers were insignificant compared to those of the injured. Sixty-three people lost their lives. One hundred and forty-eight suffered severe injuries. YouTube recordings which captured the horrendous scene also unraveled how completely clueless the survivors were in dealing with the aftermath of the disaster. A later investigation reported that the death toll could have been severely reduced if those at the scene – survivors or bystanders – would have taken the initiative to act and give first aid to those with life threatening injuries. It is the common consensus that many lives could have been spared if only those at the scene had had the most basic knowledge and the skills required to help those in need before – and even after – official medical personnel arrived at the burning club.

A second unforeseen issue highlighted by the Colectiv disaster was the inability of Romanian hospitals to deal with large amounts of traumas. Trauma centers and clinics were overflowed as those injured from the disaster were rushed into hospitals. This raised severe questions about how equipped the Romanian healthcare system is in dealing with a major disaster such as a repeat of the 7.2 Richter scale earthquake which hit the country in 1977 or the 7.4 magnitude earthquake which occurred in 1940. Should cataclysm from the highly volatile Vrancea zone strike again, what would happen to potentially thousands of injured in need of medical attention if three months ago hospitals in the capital were working at overcapacity and yet failing to accommodate the little over 200 patients from Colectiv?

The answer to these problems does not lie with the hospitals, but with the people. In such a dysfunctional system, teaching the people how to deal with emergency situations is the best step in advancing the public health of the population.
Making the Case for First Aid and CPR

Why Romania?

Romania is located in Southeastern Europe, covers some 92 thousand square miles (smaller than the state of Michigan) and has an estimated 20 million inhabitants. Still trying to recover from 42 years of communist socio-economic oppression, Romania is considered a developing country by the International Monetary Fund’s World Economic Outlook Report\(^1\). As of January 2016, the average monthly salary is reported to be just $642, while the minimum wage is reported at $56.50/month\(^2\). Only about 54% of the country’s population lives in urban areas\(^3\), whereas some rural households have yet to experience the everyday miracle of electricity. Its universal healthcare system has major flaws in modernizing to accommodate the needs of the population. Romania has only 425 hospitals meeting a sorry standard of 6.2 available hospital beds per each group of 1000 people and 2600 total ambulances\(^4\). It is incredibly difficult for the poor rural majority to access a hospital in a timely manner in case of an emergency. Even within urban areas, the emergency response times of ambulances remain greatly suboptimal when compared to those of other European countries.

Romania’s healthcare system needs to be modernized to meet the needs of its current constituency. However, reformation on such a grand scale takes years, if not even decades to complete, while in the meantime, the people are suffering from its dysfunctionality. What this project proposes is a bottoms-up educational campaign which raises awareness for methods people can use to aid one another in case of medical emergencies, and plans to teach people the skills required to do so.

As a final point, I would like to add that this issue is deeply personal to me for two reasons. The first is that I have been on the giving end of CPR and I have witnessed the difference it made, probably even to the point of saving the person’s life. The second is that I lost my father to a heart attack; I know how painful it is to lose someone and spend the rest of your life wishing you knew how to help.

\(^1\) http://www.imf.org/external/pubs/ft/weo/2015/01/pdf/text.pdf
\(^2\) http://www.tradingeconomics.com/romania/wages
\(^4\) http://www.cotidianul.ro/in_romania_sunt_18300_de_biserici_si_doar_425_de_spitale-121172/
First Aid and CPR

According to the World Health Rankings, a staggering 44.81% of total deaths in Romania are attributed to just two causes: coronary heart disease (24.46%) and stroke (20.35%)\(^5\). Both medical conditions have recognizable symptoms which can be spotted by a trained bystander who can then jump in and assist the ailing victim. The beauty of first aid and CPR is portrayed by their extreme effectiveness and relative ease to learn. CPR serves as the foundation of cardiopulmonary resuscitation, preserving the body for debilitation and advanced life support. Studies have shown that immediate CPR followed by defibrillation of sudden cardiac arrest victims dramatically increases survivability rates. A return of spontaneous circulation after immediate CPR is seen in as many as 59% of all the cardiac arrest victims\(^6\). This benefit cannot be overlooked – there is real potential to save real lives. Because of its effectiveness, first aid and CPR education is on the rise in developed countries. Sadly, speaking from personal experience, I cannot say the same about the state of the matter in Romania, especially in the city of Piatra-Neamț and its surrounding rural areas.

A Grassroots Educational Campaign

Location

I plan to focus my efforts on the Neamț County in northeastern Romania. I volunteered at the Emergency County Hospital of Piatra-Neamț during my gap year in 2013-2014, an experience which has had a major influence on the direction of this project. While living in the city, I noticed a severe lack of education on a broad array of public health topics. I want to go back and donate my time by creating a grassroots educational campaign which stresses the tremendous benefits of knowing how to administer first aid and CPR in any eventuality. Furthermore, I plan to become certified as a CPR, AED and Basic First Aid instructor in order to teach short courses as part of the educational campaign.

Secondly, I chose this particular city because of the contacts that I have established there. Some are like-minded friends eager to donate their time and effort; others are doctors and nurses from the County Hospital which I could always turn to for advice. I know my way around the city and the surrounding rural areas which is incredibly beneficial when canvassing to raise awareness and to enroll people into the proposed educational courses. Finally, I know where to look for housing and where to eat as to conserve the most money.

\(^5\) http://www.worldlifeexpectancy.com/romania-stroke
Overview

As previously stated, the purpose of this project is to educate people about first aid and CPR and to teach the necessary skills required to administer these various techniques. Below is an overview of what the project entitles:

- Create a website to act as an information hub for this project.
- Purchase 1-2 CPR mannequins, a pop-up tent and first aid supplies.
- Make and print out pamphlets with first aid/CPR information.
- Recruit volunteers to aid with canvassing, putting up posters, passing out fliers.
- Canvass, pass out fliers, spread the website on social media;
  - Schools are still in session until early July, making them perfect canvassing places.
- Teach first aid/CPR classes;
  - Either at the pop-up tent or in a school’s gymnasium (very cheap to rent the space).
- Keep the website updated after the program ends.

Timeline

Week 0

- Look for a place to stay;
- Design website and pamphlets;
- Become accredited to teach First Aid/CPR/AED.

Week 1

- Arrive in Bucharest, take the train to Piatra-Neamt;
- Begin recruiting volunteers;
- Make the necessary purchases;
- Begin canvassing – target schools first;
- Put up posters, pass out fliers;
- Get approval to put up pop-up tent at open-air city events such as the annual streetball championship, soccer games, etc.;
- Leave pamphlets in hospitals and clinics;
- Look for place to teach courses: either a school gymnasium, the “Children’s Palace” (meeting place for clubs and youth associations).
Week 2-7

- Divide time between teaching courses and canvassing;
- Keep recruiting volunteers;
- Keep website updated with photos, information, dates, etc.;
- Invite local clubs to courses.

Week 8

- Wrap up
- Identify potential volunteers who can keep raising awareness after the program ends;
- Take train to Bucharest;
- Arrive back in the United States.

Sustainability and Impact

The advancement and completion of this project does not require any resources to be provided by the host country. It is completely self-sustainable with the budgetary constraints offered by this fellowship. It requires nothing else but the initial funds, and more importantly, time. The city of Piatra-Neamt has an active volunteering center from where volunteers of all ages can be recruited to lend their time to the project, thus increasing its operational man-hours and boosting its efficiency.

The long-term impact of this project cannot be underestimated. As stated above, and as is true of any public health campaign, change happens over time. This project seeks to educate and inform people about a public health issue and carries a message which has a potential to connect with the vast majority of the population. Its task is to give people the information necessary to potentially save lives, something which does not diminish or decay over time: they will carry the life-saving skills wherever they go for as long as they live.

Lastly, the teaching supplies, the mannequins and the pop-up tent will be donated to the city’s volunteering association. I will strongly encourage their volunteers to pick up where I leave off and carry forward the message of this campaign.
Executive Summary

Project Title: Raising Awareness for First Aid and CPR.

Location: Piatra-Neamt, Romania.

Budget: $4305.00

Purpose: To inform and educate the public about the benefits of first aid and CPR.

Rationale: Romania is a developing nation with a dysfunctional healthcare system. First aid and CPR preserve life, restore health, relieve suffering and limit disability when used correctly and effectively.

Methodology: Empowering the public by spreading information through canvassing, flyering, putting up posters, and teaching free of charge first aid and CPR courses to people of all ages.

Sustainability: Completely self-sustainable.
Proposed Budget

Project: Raising Awareness for First Aid and CPR

Location: Piatra-Neamt, Romania

Travel
Airfare from PHX to Bucharest (round trip) $2,000.00
Train from Bucharest to Piatra-Neamt (round trip) $150.00
Bus/shuttle to surrounding rural areas $200.00

Living Expenses
Housing $400.00
Food $350.00
Internet (cheaper than paying for int’l phone service) $20.00
Cell phone $10.00
Toiletries $30.00

Project Supplies
Pop-up tent $220.00
CPR Manikins $425.00
First-Aid supplies $200.00
Printing posters/pamphlets/fliers $200.00
Miscellaneous $100.00

Grand Total $4305.00