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# Pakistan Life Savers Programme

*Training 10 million Pakistanis in CPR and Bleeding Control*



## BRIEF BACKGROUND

Every year hundreds and thousands of people lose their lives all around the world due to out-of-hospital cardiac arrest (OHCA) and traumatic bleeding. The situation is even worse in low and lower-middle-income countries (LMICs) due to barriers like lack of resources and weak healthcare infrastructure. A study from Pakistan reported that the incidence of OHCA was 166/100,000 whereas the rate of survival was 0% after 02 months of hospital discharge in Karachi, the largest city in Pakistan and home to nearly 20 million citizens.

Although the literature suggests that immediate bystander response and actions like activation of emergency response systems, CPR, Defibrillation, and Bleeding Control can double or even triple the rate of survival, few high-quality national bystander training programs exist outside high-resourced, high-income countries. Considering the significant burden of both OHCA and trauma in low and low-middle-income countries, there is a considerable need to equip the citizens in these countries with skills that are essential to save lives in case of emergencies like OHCA and life-threatening traumatic injuries.

In response to the need, Pakistan Life Savers Programme (PLSP) was launched in February 2020 as a national movement to transform Pakistan into a nation of empowered citizens with skills to save lives by training ten million Pakistani citizens in CPR and Bleeding Control. Currently, the program is supported by the funding provided by the Aga Khan University, Medical College alumni (Class of 1994).

## INTERVENTIONS / STEPS TAKEN

The vision of PLSP is in alignment with the GRA-10 steps. PLSP brings together the major stakeholders in the form of healthcare and educational institutes, subject matter experts, and the government to achieve its mission of training 10 million citizens in CPR and Bleeding Control. As the PLSP consortium includes ambulance services and healthcare institutes as well, the program has also been successful in the capacity building of healthcare providers besides the community. The program is based on the "train the trainer" model where the Master Trainers from the consortium members train the teachers at educational institutes, who then train the students as "Pakistan Life Savers". To bring sustainability to these training, efforts are being made to incorporate the PLSP training in the middle and high school curriculum of the country. The PLSP curriculum will be implemented in the middle school

curriculum at the Aga Khan Education Board from the year 2023. The quality of this training is monitored using pre-defined criteria through a validated "hands-on evaluation checklist". The number of Master Trainers, Trainers, and Pakistan Life Savers trained are recorded and tracked with a unique ID given to them through the PLSP certificates. The PLSP will be introducing a Telephone CPR (T-CPR) program with Quality Improvement (QI) for the emergency medical dispatchers or telephone operators at the ambulance services in Pakistan. The T-CPR curriculum and a prototype have already been developed which will be implemented in the month of July 2022 in the province of Punjab. In addition, the development of a cardiac arrest registry, the launching of a mobile application to help the Pakistan Life Saver reach the location of an OHCA, and a feasibility study for an AED implementation program is in the strategic plan of the PLSP.



## ESTIMATE LIFE SAVING IMPACT

A study from Singapore reported that bystander focussed public health interventions like Dispatch Assisted CPR, CPR training and the use of smart technologies can increase the probability of survival to hospital discharge to approximately 10%-30% (over 05 years). As the incidence of OHCA in the city of Karachi has a population of nearly 20 million is 166/100,000 and the rate of survival is 1.6% to hospital discharge and 0% two months after hospital discharge, we assume that after the implementation of Telephone CPR, bystander CPR training and mobile application the rate of survival to hospital discharge can increase to approximately 511 per million (over 05 years). This means, that these interventions can result in 102 extra lives saved per million population every year.

## CHALLENGES

A significant portion of the total training cost is dedicated to training equipment, supplies, and mannikins. Keeping up with the cost of mannikins in a low-resource country like Pakistan isn't sustainable or cost-effective in the long run, especially for a program that doesn't charge any monetary fee to conduct training sessions or certify an individual as a Pakistan Life Saver. In addition, during the pandemic lack of access to schools and educational institutes was a barrier to the program.

## RESULTS

Although launched shortly before the infamous pandemic put all sorts of human activity to a halt, PLSP has trained more than 70,000 Pakistanis as Pakistan Life Savers. Additionally, a force of over 2000 credentialled PLSP Master Trainers have been prepared from all over the country who are certified to conduct these training.

The team has made significant progress in integrating the PLSP curriculum into the Aga Khan University Education Board's curriculum as a part of their Middle School Project (MSP).

## OUTLOOK

PLSP Secretariat is looking forward to engaging with the government and law-making institutions for nationwide implementation and further enhancement of the program.

## CONTACT

To learn more about the program, write at [coe.te@aku.edu](mailto:coe.te@aku.edu).