





China - PAD

# Public Access Defibrillation Program in Shenzhen, China

#### **BRIEF BACKGROUND**

In China, over 600,000 sudden cardiac arrests occur each year and very few individuals survive through hospital discharge. Shenzhen is a major economic powerhouse and technology hub in South China with a population of nearly 25 million. The city's municipal government recognized this huge public health crisis and was determined to educate the public and introduce specific programs to increase survival rates.

#### **STEPS TAKEN**

The Municipal Center for Emergency Medical System (Shenzhen EMS) initiated a city-wide public access defibrillation (PAD) program in 2016. By 2018, legislation was passed to purchase and place 5,000 AEDs within three years in public sites, including rail and subway stations, the airport, the stadium, schools, community centers and major office buildings. The law required the training of at least 100 laypersons for each installed AED. The city also developed a partnership with Tencent Inc. to create an AED app that allows for a simplified search of AED locations.



## **CHALLENGES**

The PAD program required substantial financial commitments by the city government, deeming a program evaluation critical in justifying the investment and its cost-effectiveness.

## **RESULTS**

Through the PAD program, over 150,000 laypersons conducted and passed high-quality CPR and AED trainings. In addition, 1,500 AEDs were placed throughout the city in the first phase of the program. By the end of 2018, AEDs were utilized in 17 cardiac arrest events, and five individuals were resuscitated.



#### **OUTLOOK**

The Shenzhen City Government intends to fully implement the program, and in parallel, work to fill the gaps in the chain of survival. This includes expanding the public education program to increase awareness of the signs and symptoms of heart attack and cardiac arrest, to call I-2-0 in case of an emergency and to increase layperson CPR, further strengthening the city's EMS system.

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