

Background

Cardiac arrests mostly happen outside of hospital [1]. Bystander CPR can improve both neurological outcomes and survival in children [2], however only 15% of parents report having knowledge on what to do if their child needed CPR [3]. Children in low-income neighbourhoods are 33% less likely to receive bystander CPR [4]. Notably, Roehampton is one of the most deprived areas in England, with around 38% of children living in poverty [5]. As such, Ready To Rescue aims to target the need for free BLS teaching within deprived communities.

Aims

- Improve basic life support skills through hands-on teaching
- Signpost and support access to local services
- Provide free supplies to support families

Structure

- **Free courses** every 2 months across Roehampton
- Advertised on social media and through Wandsworth Health Champions
- 2 doctors and 20-35 attendees per session
- Content: recognizing cardiac arrest, calling 999, performing CPR, recognizing and helping a choking child, teaching on common childhood emergencies
- Practical teaching with direct feedback
- Other: information on vaccinations, involvement of charities and support services, free supplies (food, baby formula, diapers, baby wipes)

Results

>100 attendees so far; survey results from $n=34$:

- Nearly 30% unemployed, with around 50% facing health inequalities
- Only 12% had previous BLS training
- 95% reported increased confidence at recognizing cardiac arrest and commencing CPR
- 100% reported expectations were met

References:

- [1] Atkins DL, Everson-Stewart S, Sears GK, Daya M, Osmond MH, Warden CR, et al. Epidemiology and outcomes from out-of-hospital cardiac arrest in children. *Circulation*. 2009;119(11):1484–91.
- [2] Kitamura T, Iwami T, Kawamura T, Nagao K, Tanaka H, Nadkarni VM, et al. Conventional and chest-compression-only cardiopulmonary resuscitation by bystanders for children who have out-of-hospital cardiac arrests: a prospective, nationwide, population-based cohort study. *Lancet*. 2010; 375(9723):1347–54.
- [3] Resuscitation Council UK launches a free baby and child CPR book which will help save children's lives (2023) Resuscitation Council UK. Available at: <https://www.resus.org.uk/about-us/news-and-events/resuscitation-council-uk-launches-free-baby-and-child-cpr-book-which-will> (Accessed: 31 May 2024).
- [4] Zahra, S.A. et al. (2024) 'Health inequalities in cardiopulmonary resuscitation and use of automated electrical defibrillators in out-of-hospital cardiac arrest', *Current Problems in Cardiology*, 49(5), p. 102484. doi:10.1016/j.cpcardiol.2024.102484.
- [5] Indices of deprivation (2019) DataWand. Available at: <https://www.datawand.info/indices-of-deprivation-2019/#:~:text=38%25%20of%20Wandsworth%20residents%20live,2017%20small%20area%20population%20estimates> (Accessed: 20 May 2024).
- [6] Santos, M. de A. and Skellett, S. (2021) *European Paediatric Advanced Life Support*. London: Resuscitation Council (UK).

'Thank you for empowering us'

'You really are helping make such a difference for us parents'

Conclusion

Survival following out of hospital cardiac arrest relies on early recognition and delivery of CPR from bystanders [6]. Instructor-led BLS training can improve skills and confidence in the community. Courses also offer an opportunity to support unmet needs in the community through charity input and signposting.



Future direction

- Target greater geographical area
- Use of interpreters
- Further charity input