

# Results of out of hospital resuscitation in Iceland 2012

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## Introduction

The aim of this presentation is to describe the outcome for out-of-hospital cardiac arrest in Iceland in the year of 2012. Iceland is an island of 103.000 km<sup>2</sup> in the northern-Atlantic and counts approximately 320.000 inhabitants. About 67% of the population live in the capital area around Reykjavik, the others are scattered around the coast.

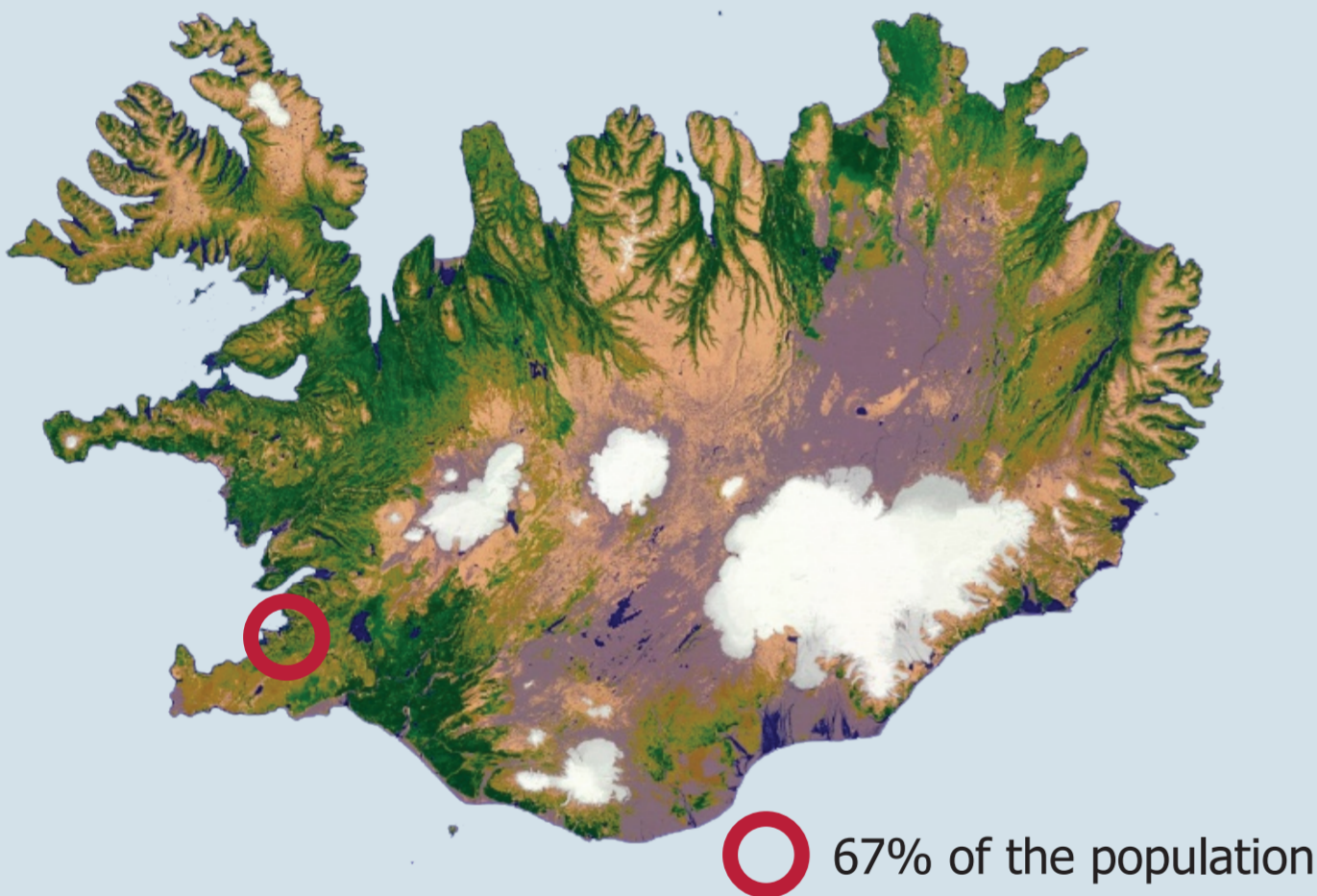


Figure 1. Map of Iceland, marked with the capital area

	Non EMS witnessed cases	EMS witnessed cases
Resuscitation attempts	123	22
Excluded	2	0
Male	70%	64%
Median age	63	64

Table 1. Case statistics

## Method

This is a retrospective study. Reports from out of hospital cardiac arrest where resuscitation was attempted were collected from all EMS services in Iceland. Data was analyzed in accordance with the Utstein style. Ki square and t-test were used for statistical analysis and level of significance was set at  $\alpha \leq 0,05$ .

## Results

In the year of 2012 resuscitation was attempted in 145 patients with confirmed cardiac arrest. That makes the incidence of attempted resuscitation 45 per 100.000. Two cases were excluded from the study as there was not enough data about the discharge from hospital. Of the 121 cases which were not EMS witnessed, 22 patients (18%) survived to discharge from hospital. 31 cases were witnessed by laypeople and with initial shockable rhythm. Out of those 31 patients, 18 (58%) survived to discharge.

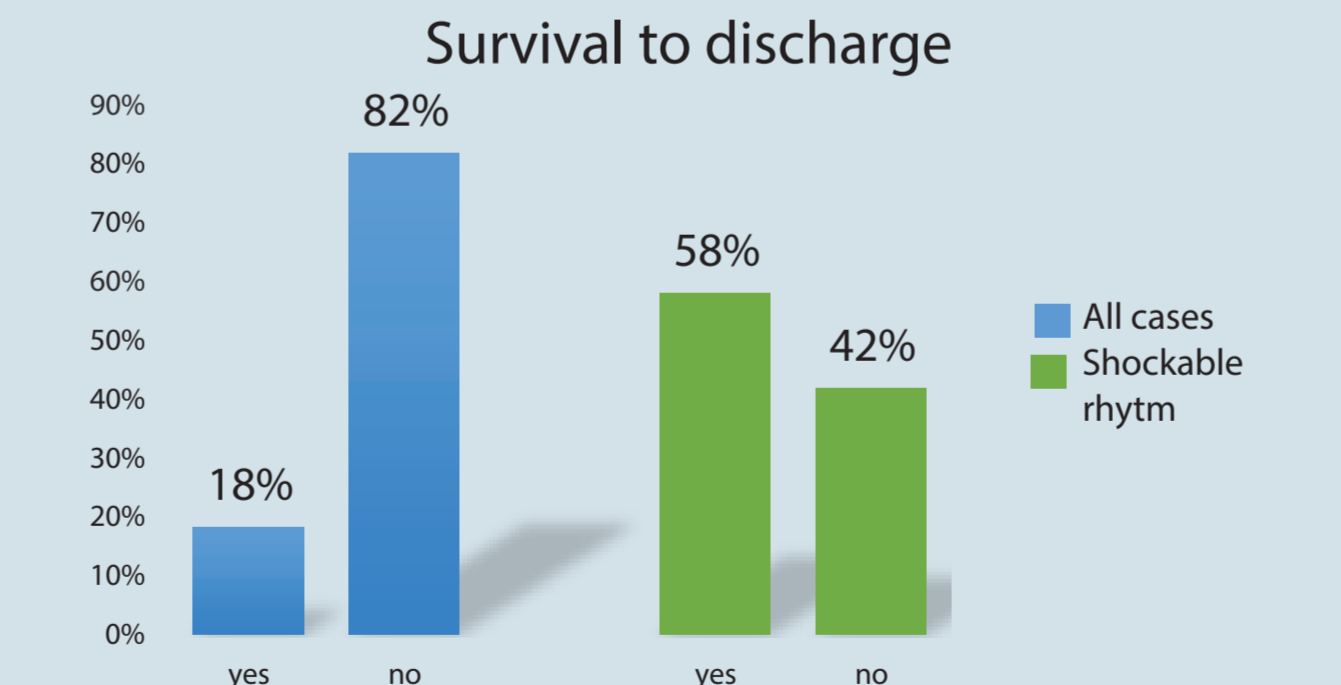


Figure 1. Survival to discharge in non EMS witnessed cases

There were 22 EMS witnessed cases out of which 8 patients (36%) survived to discharge. In 9 out of those 22 cases the first recorded rhythm was shockable. Of those 9 cases 8 survived to discharge (89%). Cardiac etiology, shockable initial rhythm and witnessed arrests were the only factors that were significantly associated with increased survival.

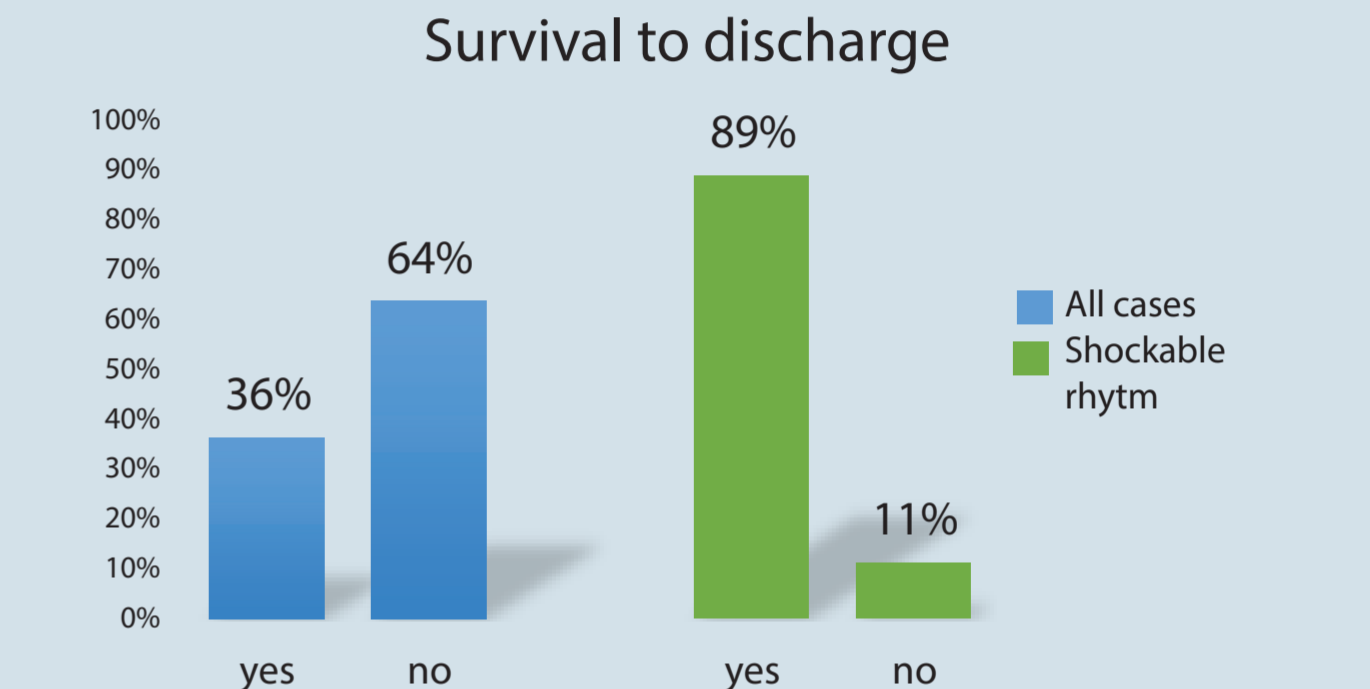


Figure 2. Survival to discharge in EMS witnessed cases

## Conclusion

The results of resuscitation from out of hospital cardiac arrests in Iceland are well acceptable. The results from the whole country seem to be similar to the results in previous studies that only included the capital area. That is interesting since the population density of Iceland is only about three persons per square kilometer. A resuscitation registry needs to be established in Iceland to promote future studies on resuscitation.



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