

Cardiopulmonary Resuscitation: Is the Emergency Department Visit an Opportunity to Recommend Education? (Poster)

Marna R. Greenberg DO, MPH, FACEP
Lehigh Valley Health Network, marna.greenberg@lvhn.org

Gavin C. Barr Jr. MD
Lehigh Valley Health Network, Gavin.Barr_jr@lvhn.org


Jon D. Willardson DO
Lehigh Valley Health Network, Jon_D.Willardson@lvhn.org

Nicholas M. Dowling DO
Lehigh Valley Health Network, Nicholas_M.Dowling@lvhn.org

Jennifer L. Sears DO
Lehigh Valley Health Network, Jennifer_L.Sears@lvhn.org

See next page for additional authors

Follow this and additional works at: <http://scholarlyworks.lvhn.org/emergency-medicine>

 Part of the [Cardiology Commons](#), [Emergency Medicine Commons](#), and the [Medical Education Commons](#)

Published In/Presented At

Greenberg, M., Barr, G., Willardson, J., Dowling, N., Sears, J., Rupp, V., Hamilton, K., & Weaver, K. (2012, June 1-5). *Cardiopulmonary Resuscitation: Is the Emergency Department Visit an Opportunity to Recommend Education?*. Poster presented at: The SAEM Annual Meeting, Boston, MA.

Greenberg, M., Barr, G., Willardson, J., Dowling, N., Sears, J., Rupp, V., Hamilton, K., & Weaver, K. (2012, June 1-5). *Cardiopulmonary Resuscitation: Is the Emergency Department Visit an Opportunity to Recommend Education?*. Poster presented at: The ACOEP, Denver, CO (October 2012)

Authors

Marna R. Greenberg DO, MPH, FACEP; Gavin C. Barr Jr. MD; Jon D. Willardson DO; Nicholas M. Dowling DO; Jennifer L. Sears DO; Valerie Rupp RN, BSN; Kimberly Hamilton BA; and Kevin Weaver DO

Cardiopulmonary Resuscitation: Is the Emergency Department Visit an Opportunity to Recommend Education?

Marna Rayl Greenberg, DO, MPH; Gavin C. Barr, Jr, MD; Jon D. Willardson, DO; Nicholas M. Dowling, DO; Jennifer L. Sears, DO; Valerie Rupp, MSN, CRNP; Kimberly Hamilton, BA; Kevin R. Weaver, DO
Lehigh Valley Health Network, Allentown, Pennsylvania

Background

The American Heart Association wants to increase the number of citizens who know how to perform cardiopulmonary resuscitation (CPR). It is unknown whether providing educational materials to patients in the Emergency Department (ED) to learn CPR is effective.

Objective

We sought to determine if patients and their families would complete a CPR Anytime™ kit if it was given to them, at no expense, during their ED visit.

Methods

This was a prospective, pilot study of a convenience sample of patients who presented to a tertiary, suburban Level-One trauma center with a yearly census of 75,000. After informed consent was obtained, CPR-naïve adult participants were given a CPR Anytime™ self learning kit, which consists of a CPR mannequin and a 22-minute DVD. Approximately three months after their ED visit, a telephone follow-up survey assessed self-reported completion of the kit at home by study participants, and/or friends and family. Descriptive frequencies and graphical methods were used to describe survey responses. Between-group comparisons for categorical variables were completed using Pearson's chi-square. Wilcoxon rank-sum test was used to evaluate differences in median CPR importance responses between participant genders. Significance was set at $\alpha < 0.05$. All statistical tests were two-sided. Stata version 10.1 (Stata Corporation, College Station, Texas) and SPSS version 15 (SPSS Inc., Chicago) were used for all analyses.

Results

The mean age of the 129 study participants was 44.7 years; 80 (62.0%) were female and 49 (38.0%) were male. Eighty-three percent (n=107) of the participants reported having access to a primary care physician and 87% (n=112) had health insurance. Seven participants (5.4%) had a personal history of a heart attack, while 68 (52.7%) reported a positive family history of heart attacks. Sixty percent of the participants (n=77) rated importance of personal knowledge of CPR a "10," on a scale from 1 to 10 (not very important to very important). When asked the importance of their family members knowing CPR, 85 respondents (65.9%) also rated it a "10" on the same scale. Despite this overall perceived importance, males reported significantly lower importance levels than females. Fifty-nine of the 80 female participants (73.8%) gave the highest score for CPR personal importance, whereas only 18 of the 49 male participants (36.7%) responding similarly (p=0.004). Comparable results were observed for CPR importance for family members with 77% of females and 46.9% of males responding with the highest score (p=0.02).

At the three-month follow-up, 14 participants (10.8%) either refused to continue to participate or could not be located. Of the 115 remaining participants, 31 (26.9%) completed the kit at home; 16 were females (22.2%) and 15 male (34.9%), (p=0.14).

There were five subjects enrolled that did not complete the kit, but had a family member do so; they were all men whose wives completed the kit. In addition, 18 of the participants gave the CPR kit to 19 additional persons (multiplier effect).

Conclusions

The majority of ED patients report that knowing how to perform CPR for both themselves and their families is very important. However, a minority of these same patients and their families are motivated to complete a CPR Anytime™ kit, even when provided at no expense to them. The benefit to the few who learn CPR from this type of effort must be offset by the program cost.

Figures and Outcomes

CPR Treatment Kit Family and Friends



Figure 1 - CPR Treatment Statistics

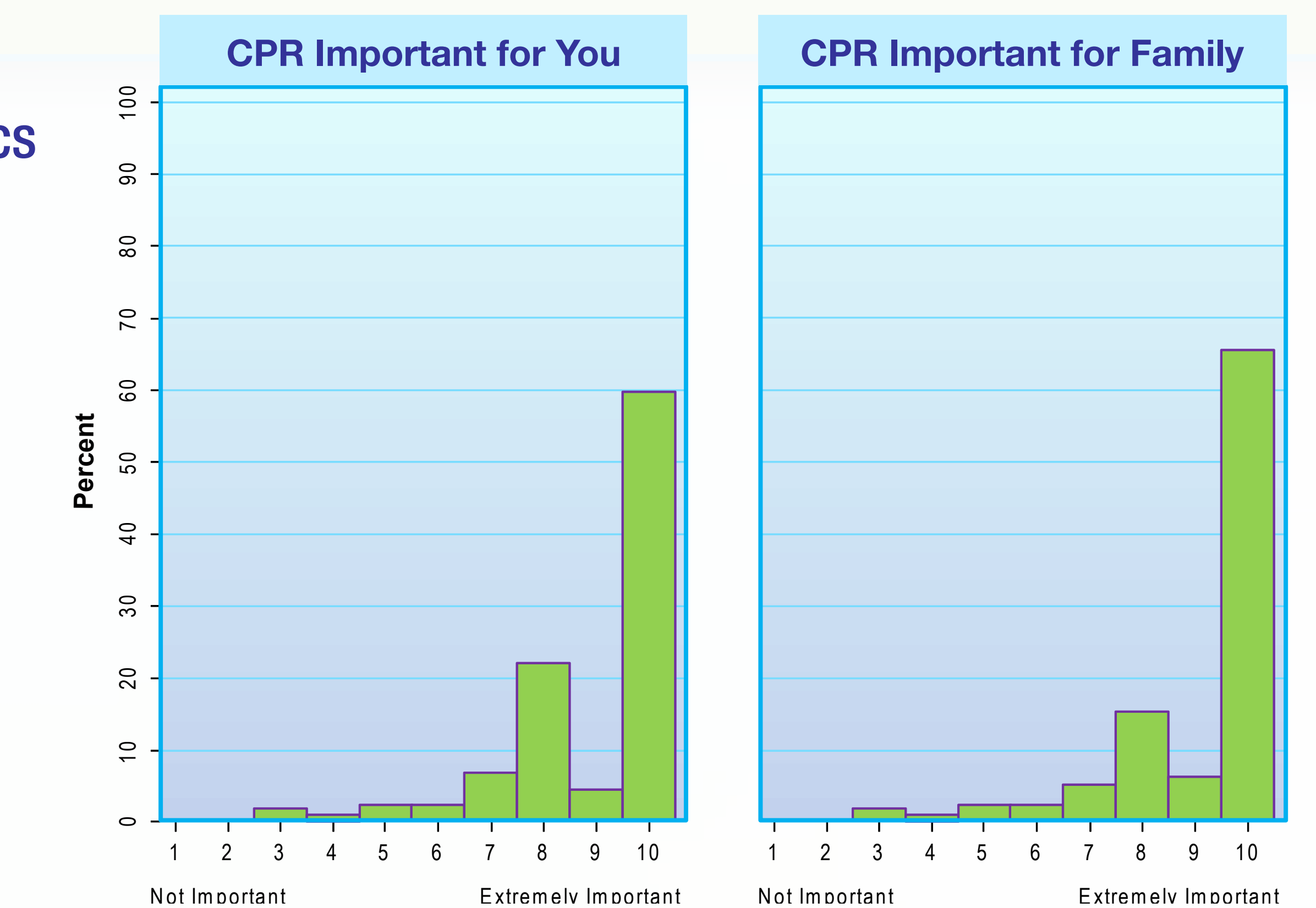
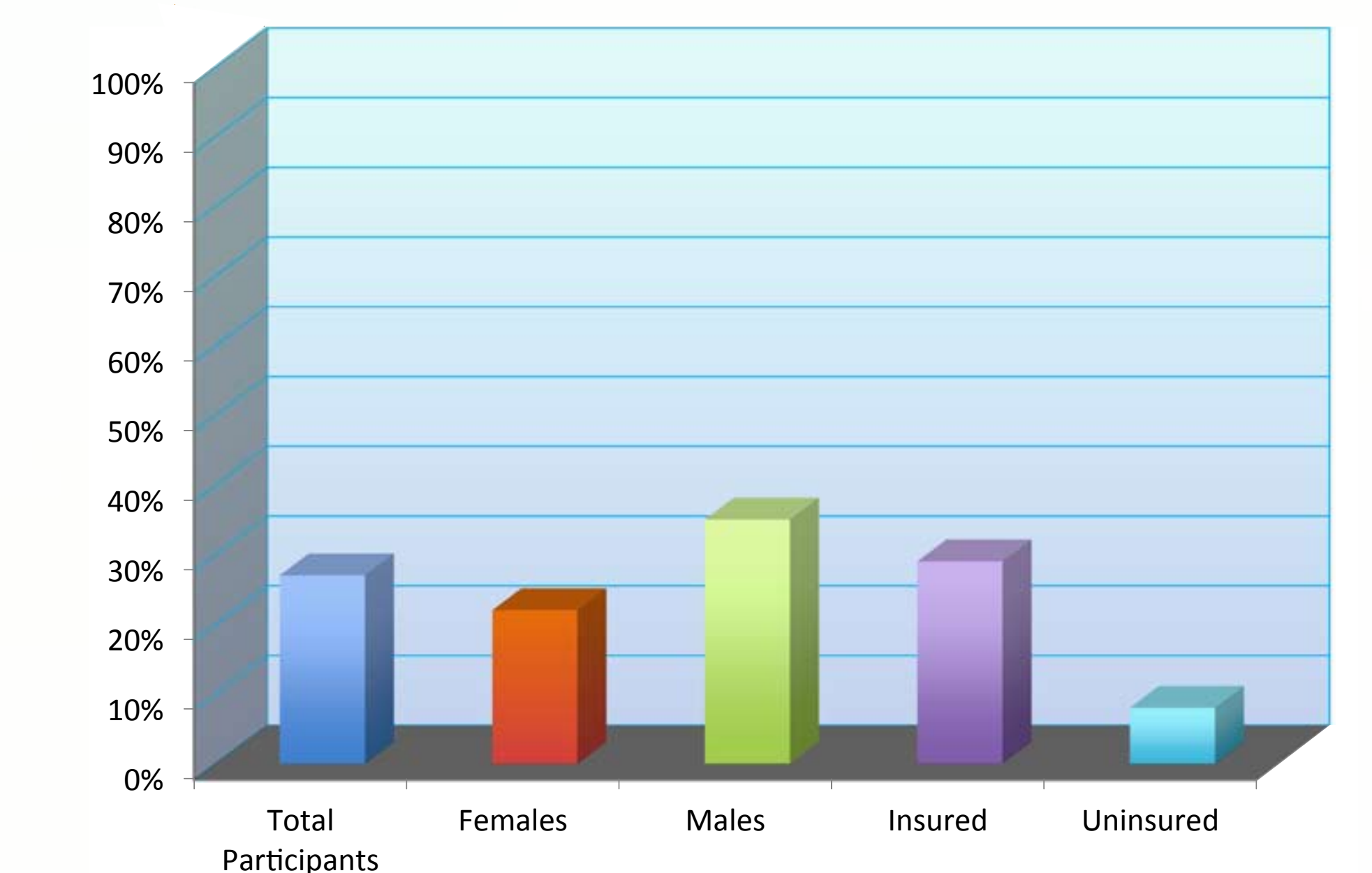


Figure 2 - Percentage of CPR Kit Utilization



References:

1. Herlitz J, Svensson L, Holmberg S, Angquist K, Young M. Efficacy of bystander CPR: intervention by lay people and by health care professionals. *Resuscitation* 2005;66:291-95.
2. Stiell IG, Wells GA, Field B, et al., Ontario Prehospital Advanced Life Support Study Group. Advanced cardiac life support in out-of-hospital cardiac arrest. *N Engl J Med* 2004;351:647-56.
3. American Heart Association. CPR & sudden cardiac arrest fact sheet [as of April 26, 2010]. Available at: http://www.heart.org/HEARTORG/CPRandECC/WhatisCPR/CPRFactsandStats/CPREducation_UCM_307542_Article.jsp. Accessed August 24, 2010.
4. American Heart Association. Out of hospital cardiac arrest statistics: Statistical fact sheet [2009 update]. Available at: <http://www.americanheart.org/presenter.jhtml?identifier=3008699>. Accessed August 24, 2010.