# New developing markets: Automatic External Defibrillators

**Deborah DiSanzo** 

December 5, 2001





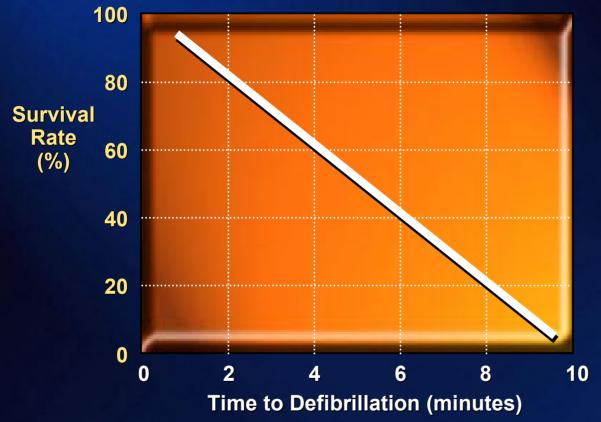
## Don McQuinn Sudden Cardiac Arrest Survivor

Collapsed while playing volleyball during stay in Hawaii





#### The Critical Early Minutes of SCA



Cummins RO, et al. Guidelines 2000 for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care (ECC)

- 225,000 people die each year of Sudden Cardiac Arrest (U.S.).
- Survival reduced by 10% each minute defibrillation is delayed
- "...the widespread deployment of automated external defibrillators ...could save as many as 100,000 lives each year..."
   June 17, 1998 - American Heart

Let's make things better



Association

**PHILIPS** 

## Time to Defibrillation is the Major Determinant of Survival

Collapse-to-arrival	Survival	Location	
11.4 minutes	1.4%	New York City, Emergency Services Response	
5-6 minutes	40%	Rochester, MN, Police	
2.2 minutes	70%	Las Vegas, NV, Casinos	
2 minutes	82%	Chicago, IL, Airport System	

Lombardi G, JAMA 1994; White RD, Resuscitation, 1998; Valenzuela TD, Acad Emerg Med 1998; USA Today, December 28, 1999





## Our Success = Smaller, Lighter, Easier to Use

- Philips acquired Heartstream as part of Agilent HSG
- Heartstream spent over 9000 hours studying AED users
- Study determined that 6<sup>th</sup> graders could place pads and deliver shock within 90 seconds



#### Our Success = Innovation in Therapy

- First external defibrillator to use low-energy biphasic
- Only company to sponsor a large randomized trial
  - Superior 1<sup>st</sup> Shock Efficacy:
    - 96% vs. 59% with high-energy monophasic
  - Superior Brain Function:
    - 87% of survivors had good brain function vs. 53% with high-energy monophasic





## Our Success = Science and Research (1995 - 2001)

	Peer-Reviewed Manuscripts	Peer-Reviewed Human Studies	Peer-Reviewed Sudden Cardiac Arrest
Philips	18	13	10
Physio Control	5	2	1
Zoll	1	1	0
Survivalink	2	2	2





#### Heartstream Shipped 1<sup>st</sup> Generation in 1996

First Generation
Dec 1996



Second Generation *May 1999* 



Advantages

**First Biphasic** 

First Smaller, Lighter

First Easier-to-use

Ready-to-use Less expensive

**Target market** 

# 1 Airlines 26/35

#1 Police

#2 Fire

First pediatric application

**Enhanced user-interface** 

Longer battery life

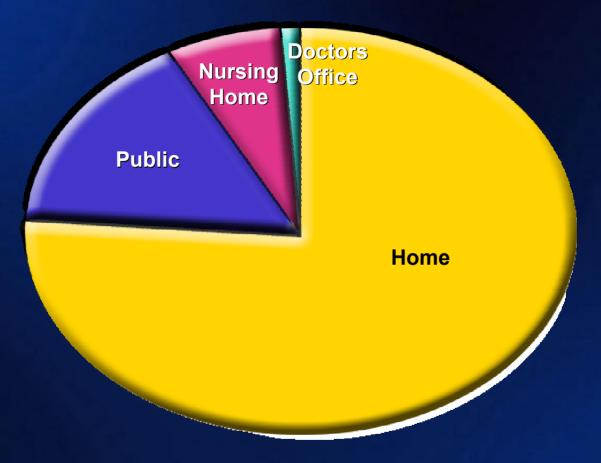
**Improved EMS hand-off** 

#1 Public access

#1 Industry



#### Over 75% of Cardiac Arrests Occur at Home



American Heart Association, Public Access Defibrillation Conference, Linda Becker, King County Health Department







#### Philips will Ship 3<sup>rd</sup> Generation in 2002

Third Gen Q2 2002

Fourth Gen 2003

**Advantages** 

Smaller

Lighter

Easier-to-use

Less expensive

**Smaller** 

Lighter

**Connected** 

**Cardiac care kit** 

Less expensive

Target market

**Community access** 

**Home** 

Home







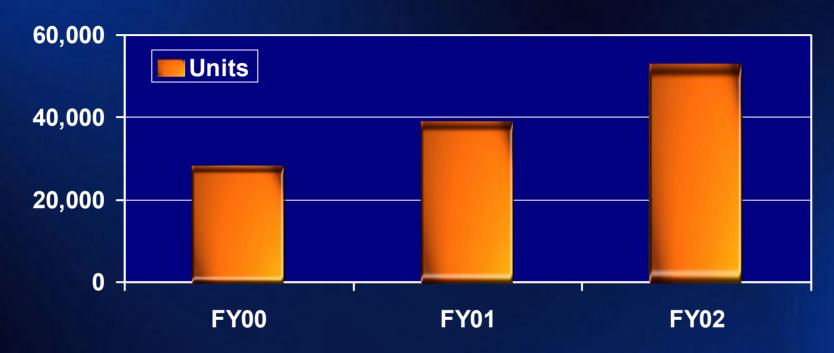
#### The Defibrillator Market is Rapidly Growing

	Hospital Clinicians	Paramedics	EMT / First Responders	Targeted Responders	Lay Responders
Description	ER, ICU, OR	EMS - ALS tional	EMS - BLS Ambulance Fire	Police Cars Aviation Industry Clinics	Public Assbly Gov't Bldings Office Bldings Homes
	Haui	liuliai			
Size 2001*	\$161m	\$97m	\$77m	\$93m	\$52m
Size 2004*	\$212m	\$109m	\$95m	\$186m	\$180m
CAGR	9.5%	4.1%	7.3%	25.8%	51.3%
Philips	29%	9.5%	32.7%	44%	44%
Share**	#2 (#1 units)	#3	#1	#1	#1





#### Philips Cardiac Resuscitation is Growing



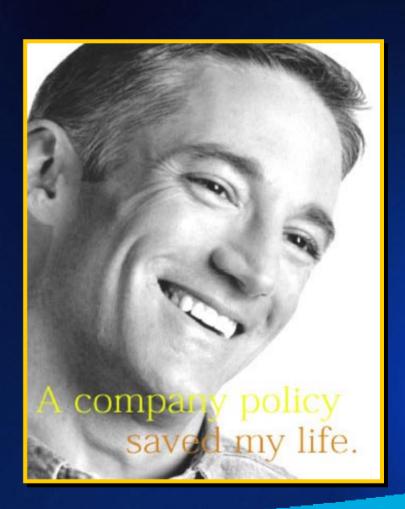
- Philips unit growth in 2001 is 38%
- Philips is number 1 in AEDs with over 80,000 installed
- Philips is number 1 Biphasic with over 90,000 installed





#### Why will Philips Win?

- Focus on design, simplicity, and ease of use
- Lead in innovative research
- Pioneer new therapies
- Drive new market development







#### Philips Cardiac Resuscitation - Mission

We design and produce every device as if the life of someone we love depends on it

