MALATTIE CARDIOVASCOLARI:

DALLA FASE ACUTA ALLA PREVENZIONE, L'ACCESSO ALLE TERAPIE NELL'ERA DEL RISANAMENTO ECONOMICO

GIUSEPPE DOSSETTI: I VALORI - SVILUPPO E TUTELA DEI DIRITTI
ASSOCIAZIONE CULTURALE ONLUS

Roma, Palazzo Marini – Sala delle Colonne
04 Ottobre 2011

Angioplastica Primaria nelle SCA: Indicazioni, Risultati e il Programma *Stent for Life*

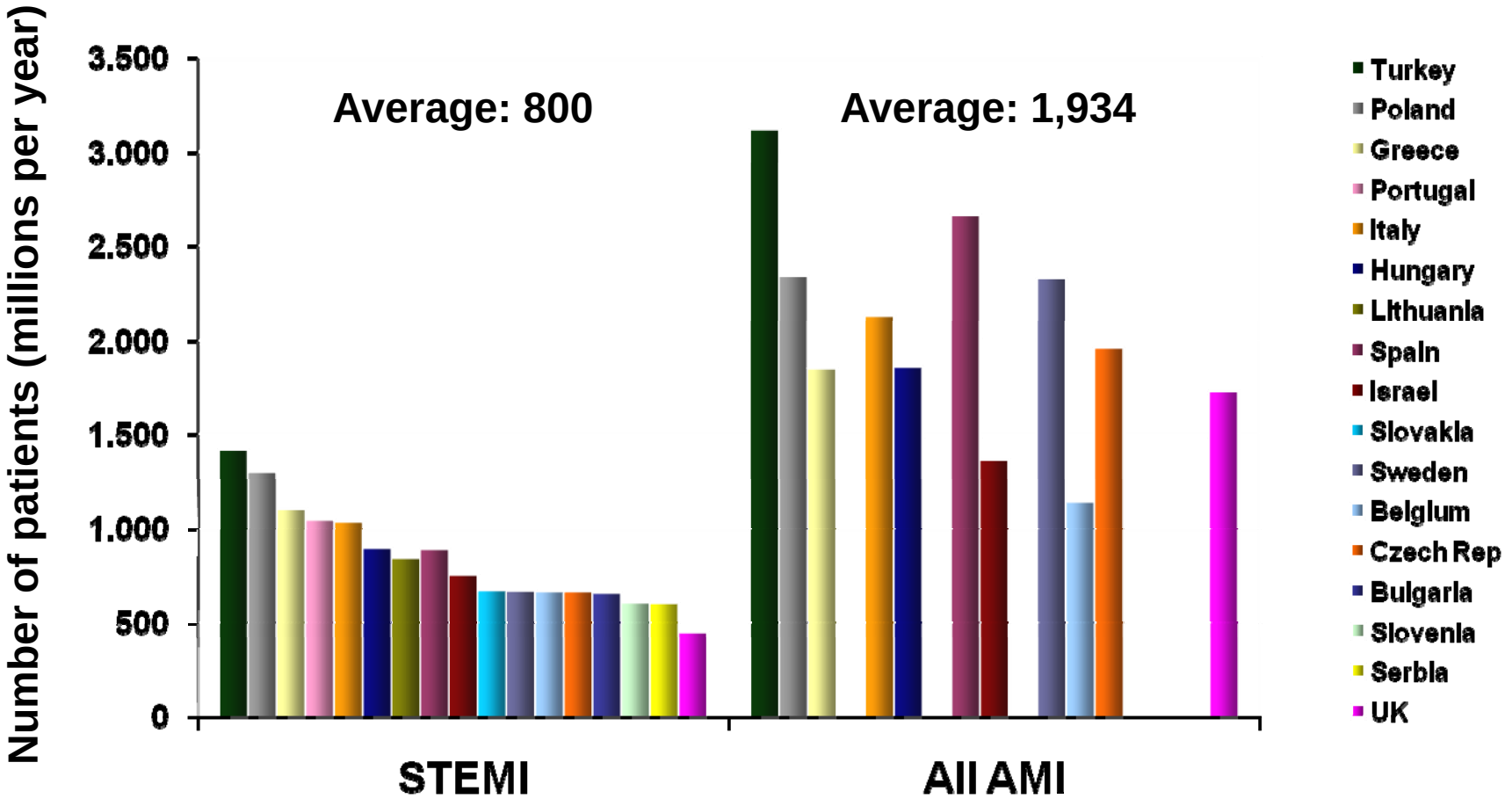
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Conflict of interest: none

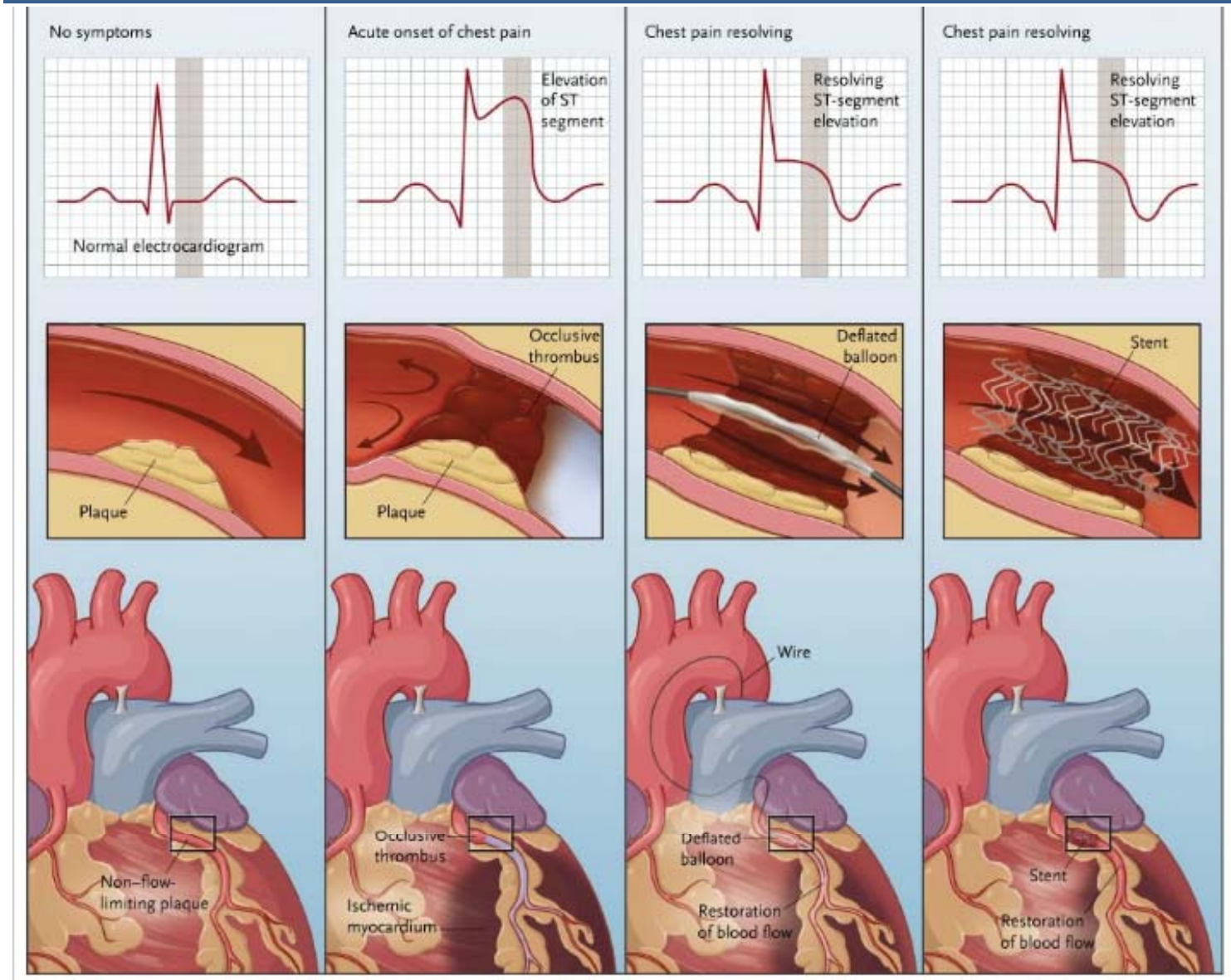


Hospital Admissions for AMI in Europe



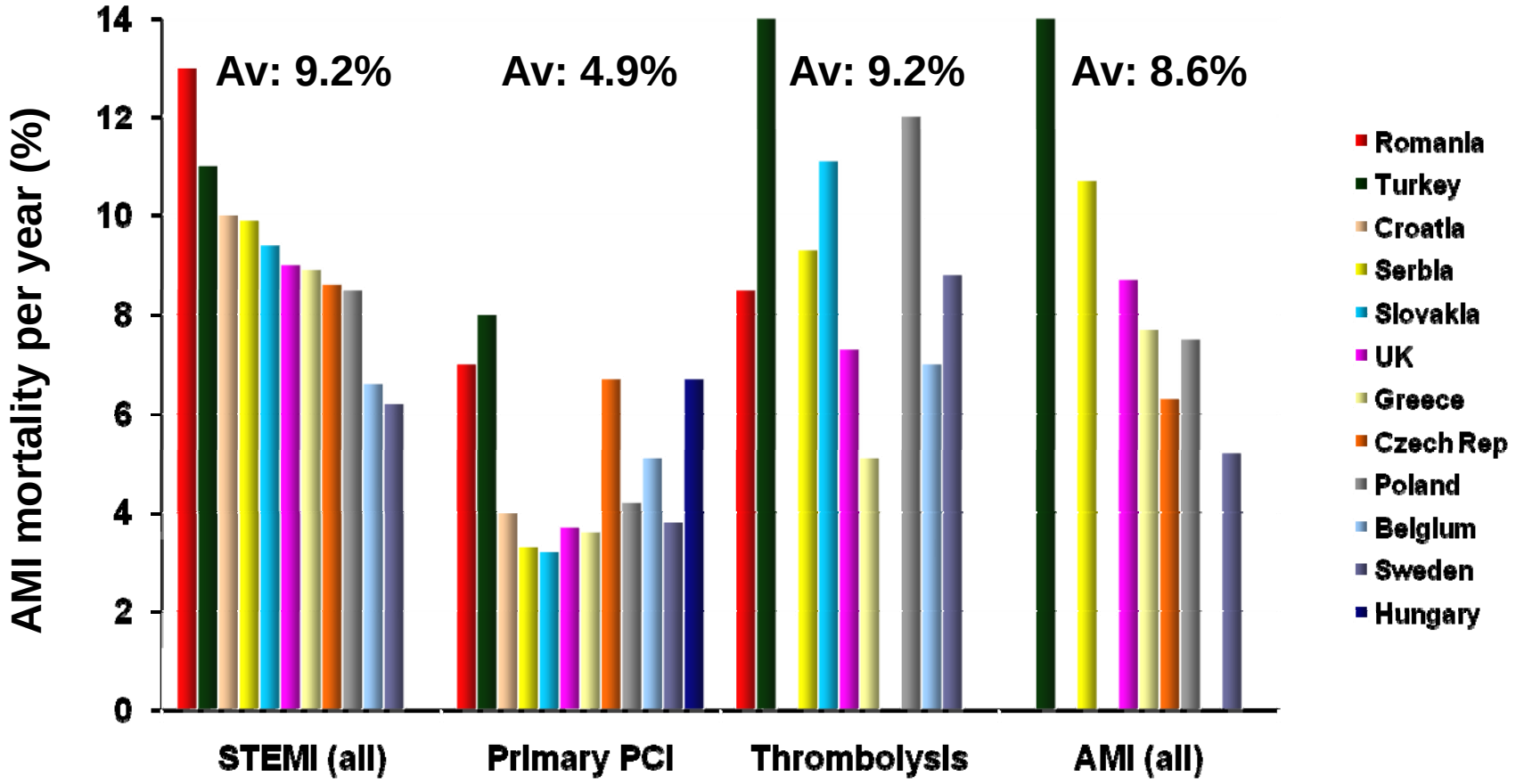
Data source: www.escardio.org/EAPCI

Myocardial Infarction with ST-Segment Elevation Before, During, and After PCI



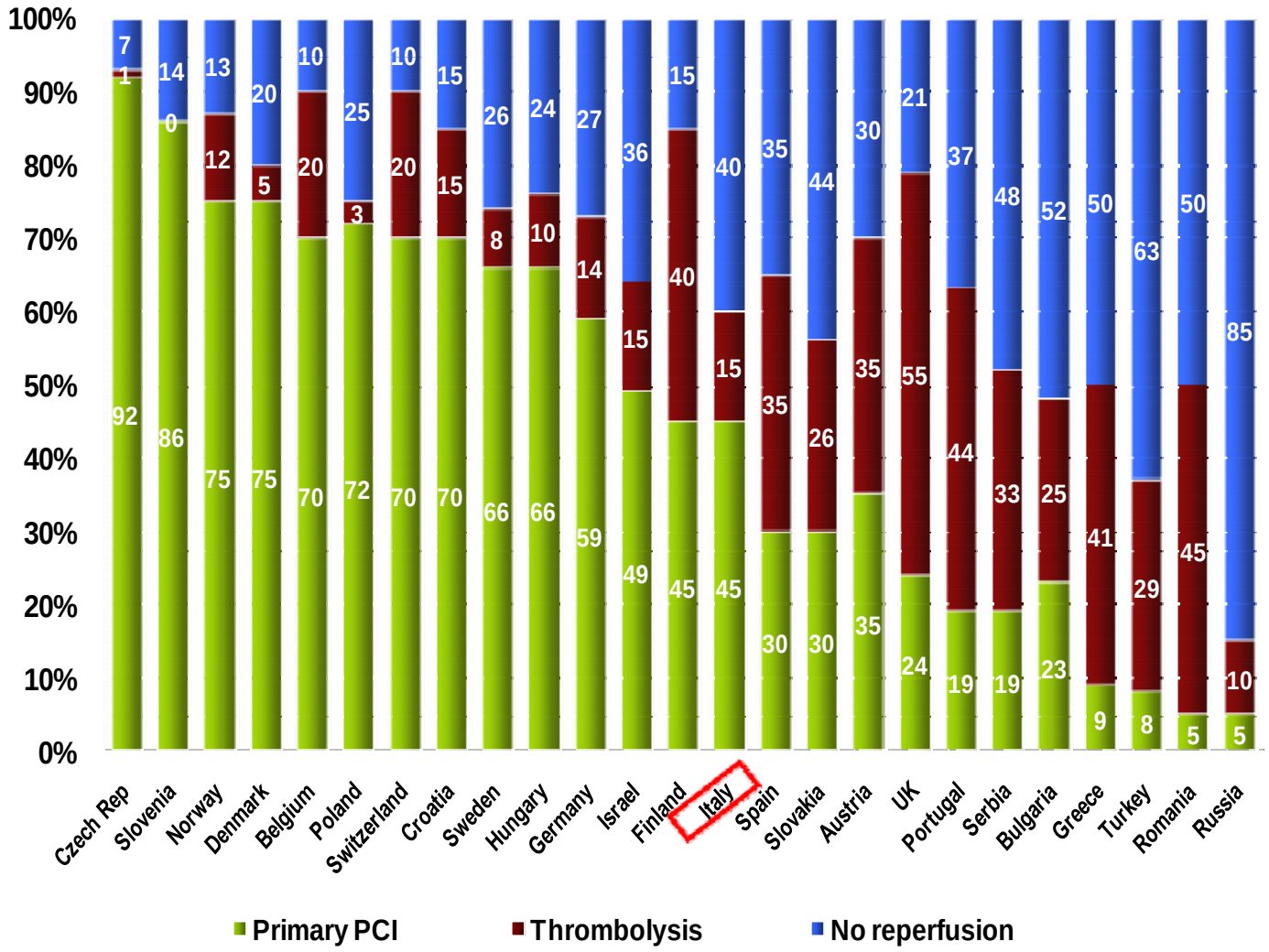


AMI Mortality According to Treatment



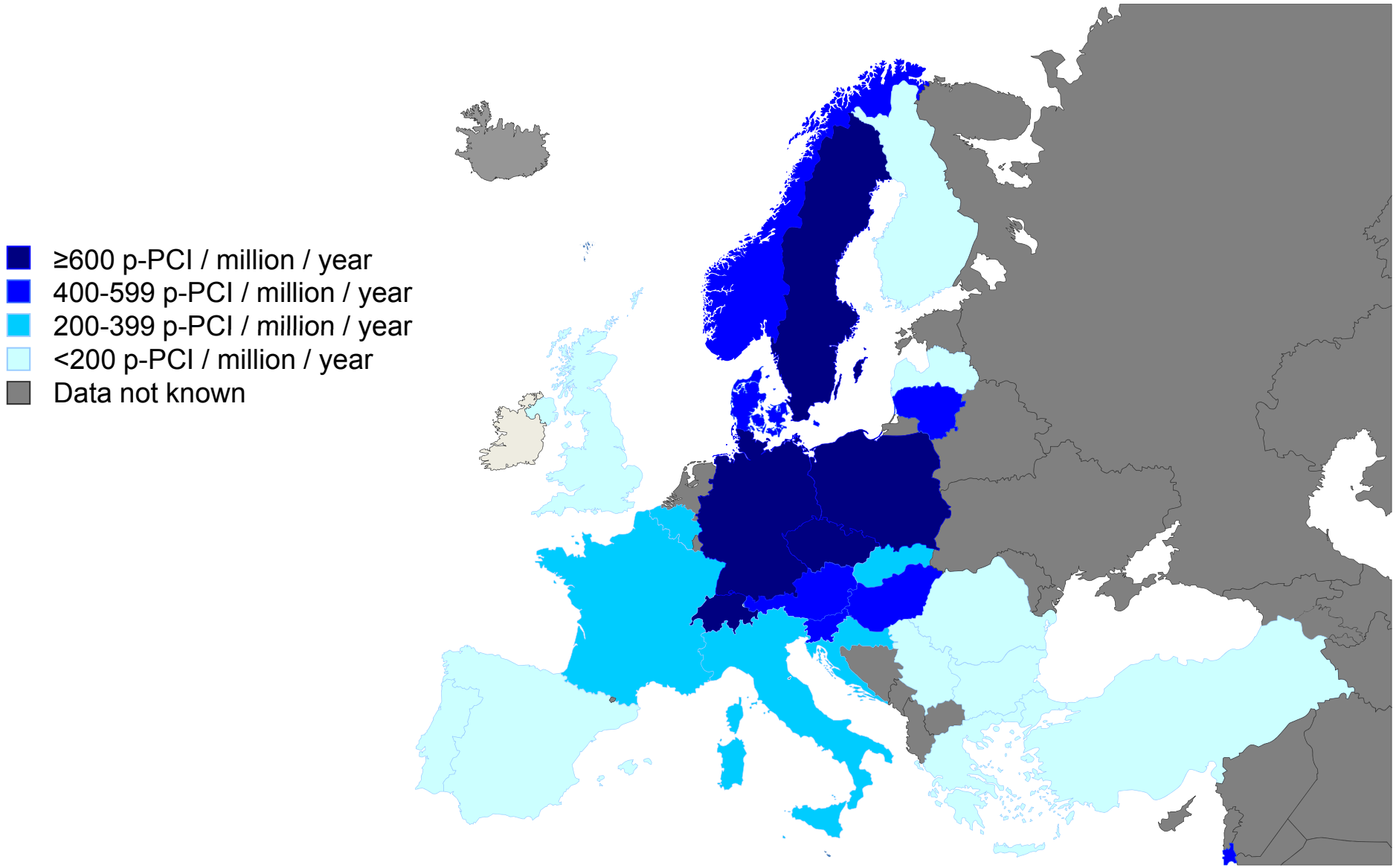
Data source: www.escardio.org/EAPCI

STEMI Reperfusion Treatment in Europe

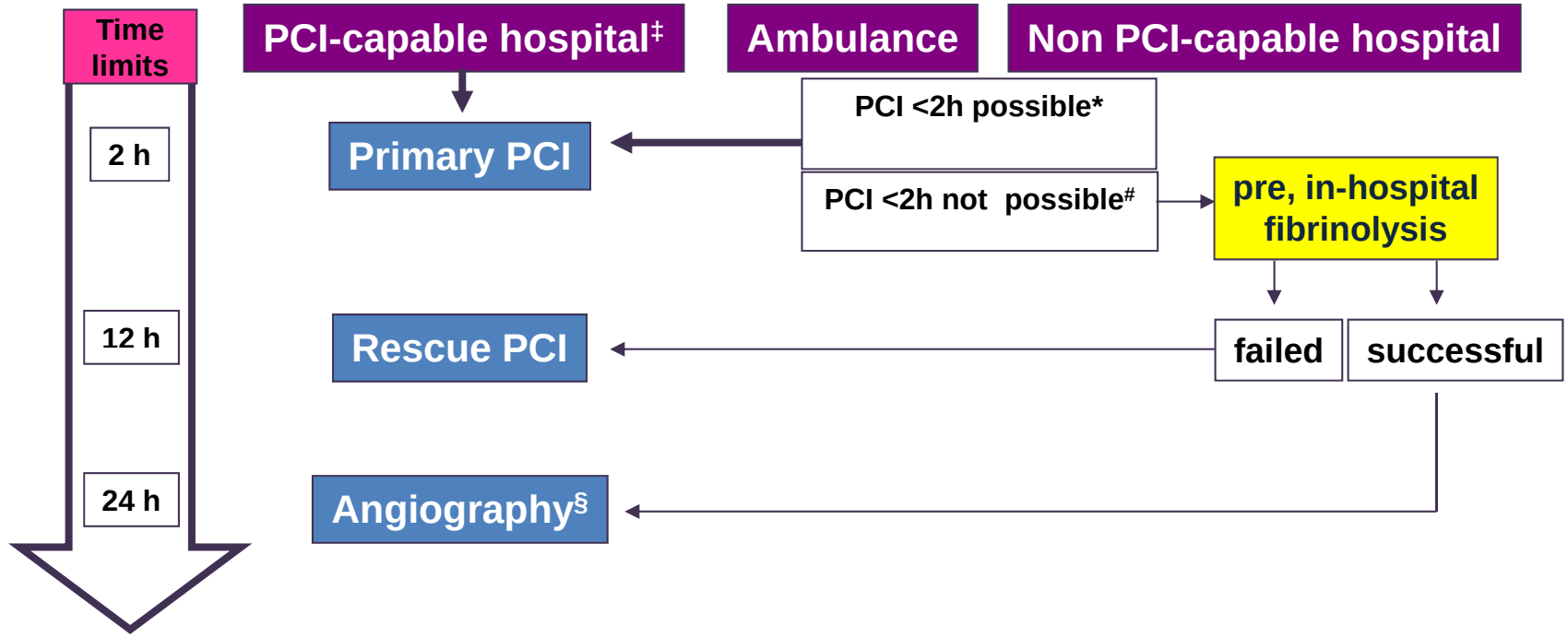


Data source: www.escardio.org/EAPCI

Annual Incidence of Primary PCIs



2008 ESC Guidelines on Persistent ST-Segment Elevation



•Time FMC to first balloon inflation must be shorter than 90 min in patients presenting early (<2 h after symptom onset), with large amount of viable myocardium and low risk of bleeding

If PCI in not possible <2 h of FMC, start fibrinolytic therapy as soon as possible

§ Not earlier than 3 h after start fibrinolysis

‡ 24/7 service

First Medical Contact (FMC)

The thick arrow indicates the preferred strategy

Van de Werf et al. Eur Heart J 2008;29:2909

Compared With the 2003 Guidelines an Important New Recommendation Was Formulated

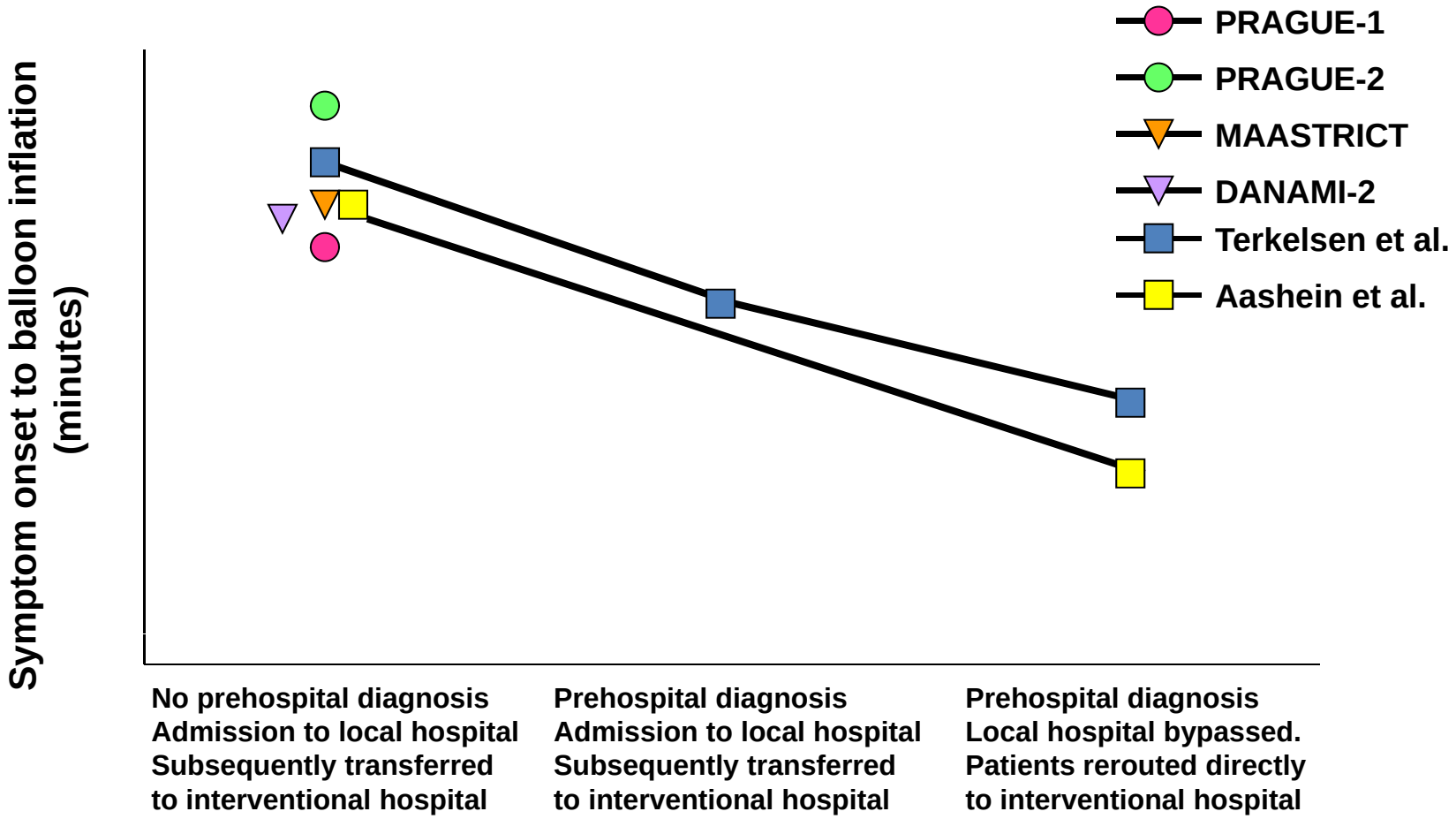
The need for the establishment of networks of hospitals with different levels of technology using the same protocol and connected by an efficient ambulance service

EUROPEAN SOCIETY OF CARDIOLOGY

Practical Limitations of Primary PCI as a Universal Reperfusion Strategy

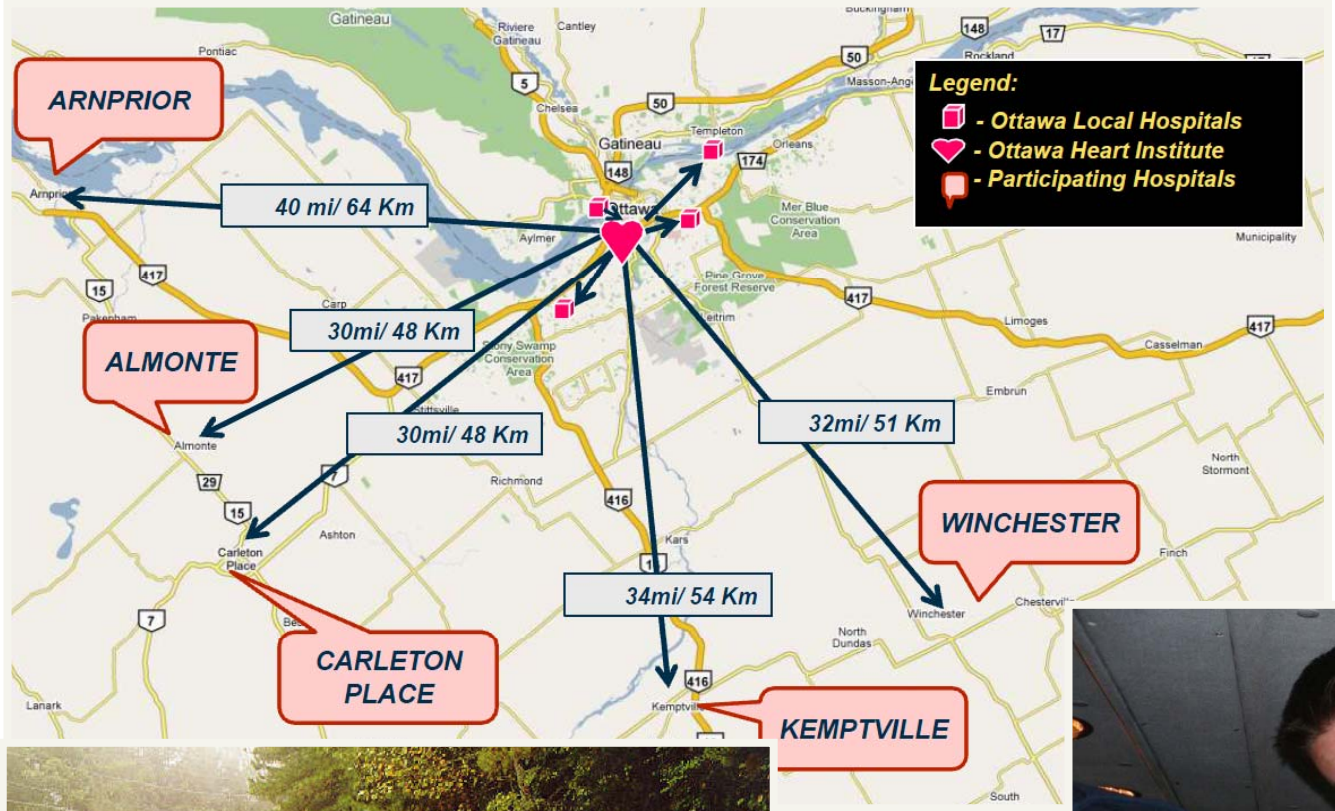
- Time delays (DBT, transfer time, waiting time for next available ambulance etc.)
- Availability of invasive facilities
- Operators' skillness and cath lab volume load
- Reorganization of EMS systems not conducive to making PPCI
  - EMS lacking 12-lead ECG capabilities
  - Not all patients having STEMI are transported by EMS
  - Mandates to transport patients to the nearest facility

Clinical Impact of Direct Referral to PCI Following pre-H Diagnosis of STEMI



Terkeisen et al. *J Electrocardiology* 2005;36:187

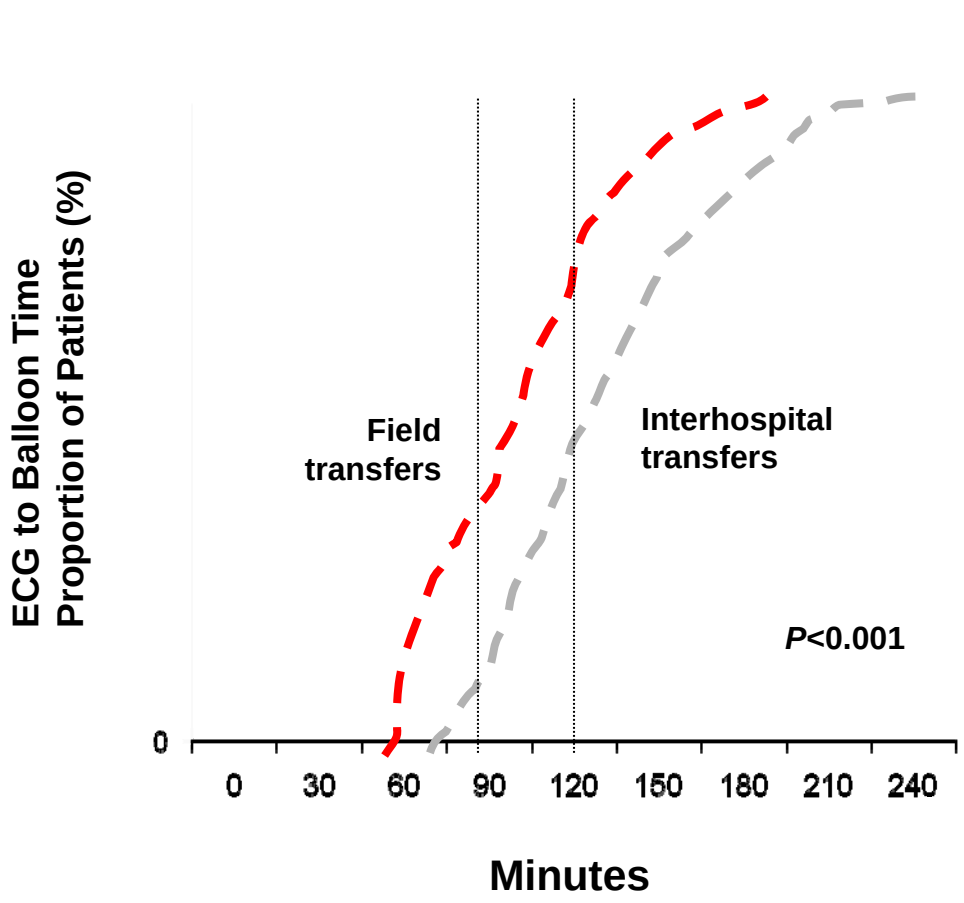
The Ottawa Hospital Institute
STEMI Regional Program

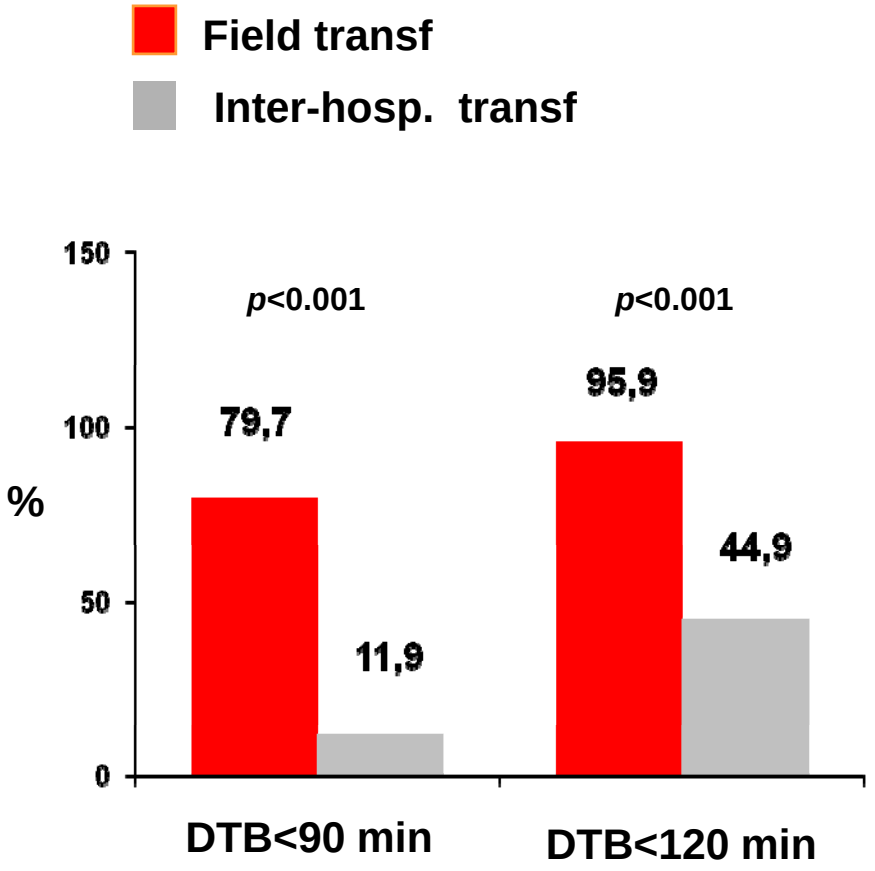






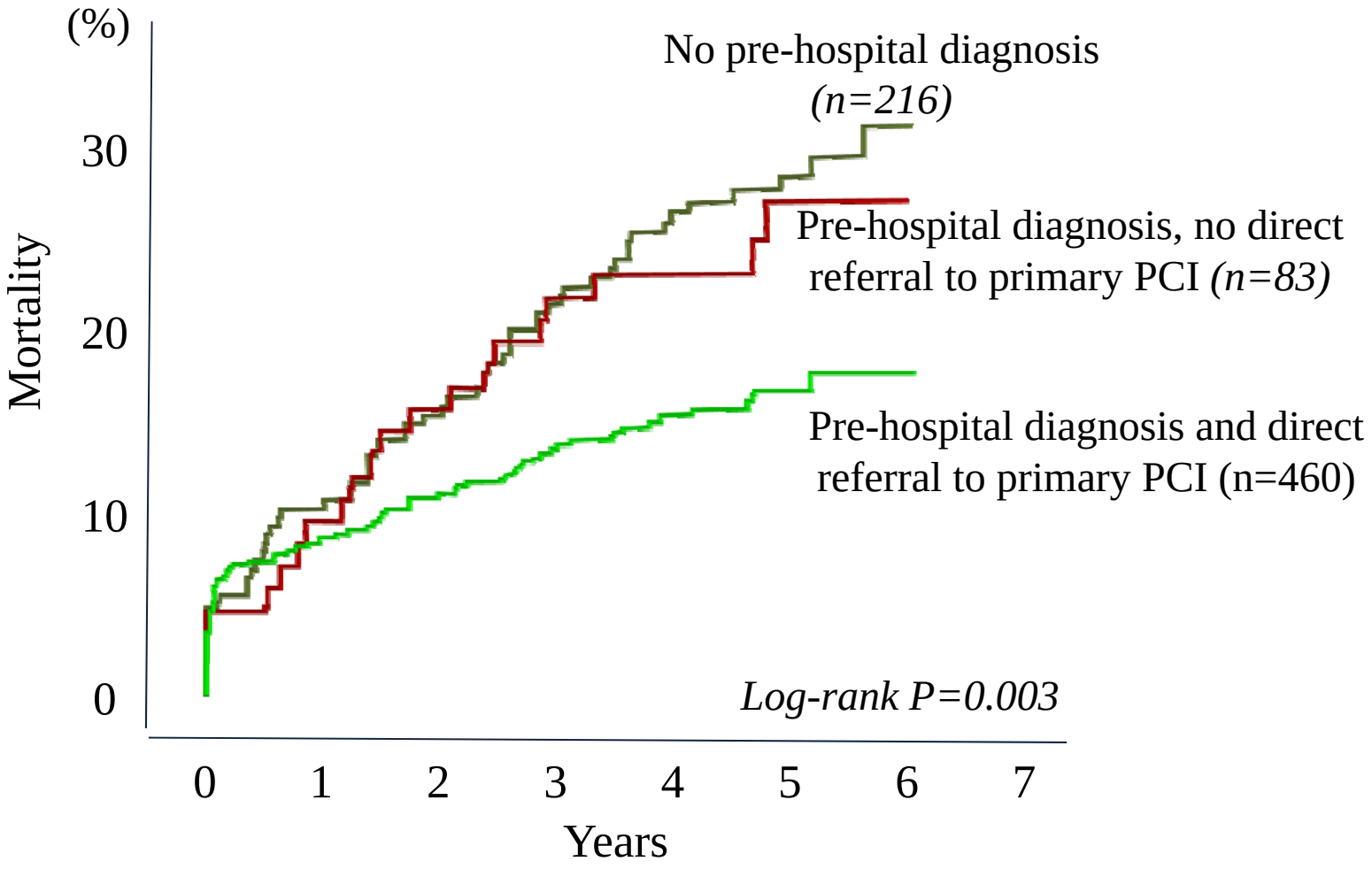
The Citywide Ottawa Program
Time to Treatment





Le May RM et al. *N Engl J Med* 2008;358:231

All-causes and CV Mortality According to Method of Diagnosis and Referral



J.T. Sorensen et al. *Eur Heart J* 2011; 32:439

Time Intervals According to Referral Method and Geographic Area

	Group 1 No pre-hosp diagnosis *(n=216)*	**Group 2** Pre-hosp diagnosis, no direct referral *(n=83)*	**Group 3** Pre-hosp diagnosis and direct referral *(n=460)*	**P**
Symptom-balloon time, min	251	199	138	<0.001
Rural	259	215	151	
Urban	250	184	130	
EMS contact-balloon time, min	144	141	90	<0.001
Rural	167	152	93	
Urban	122	121	84	
EMS contact-balloon time ≤ 120 min, %	32 %	33 %	86 %	<0.001
Rural	15 %	28 %	83 %	
Urban	48 %	46 %	89 %	

Sorensen JT et al. *Eur Heart J* 2011; 32:430

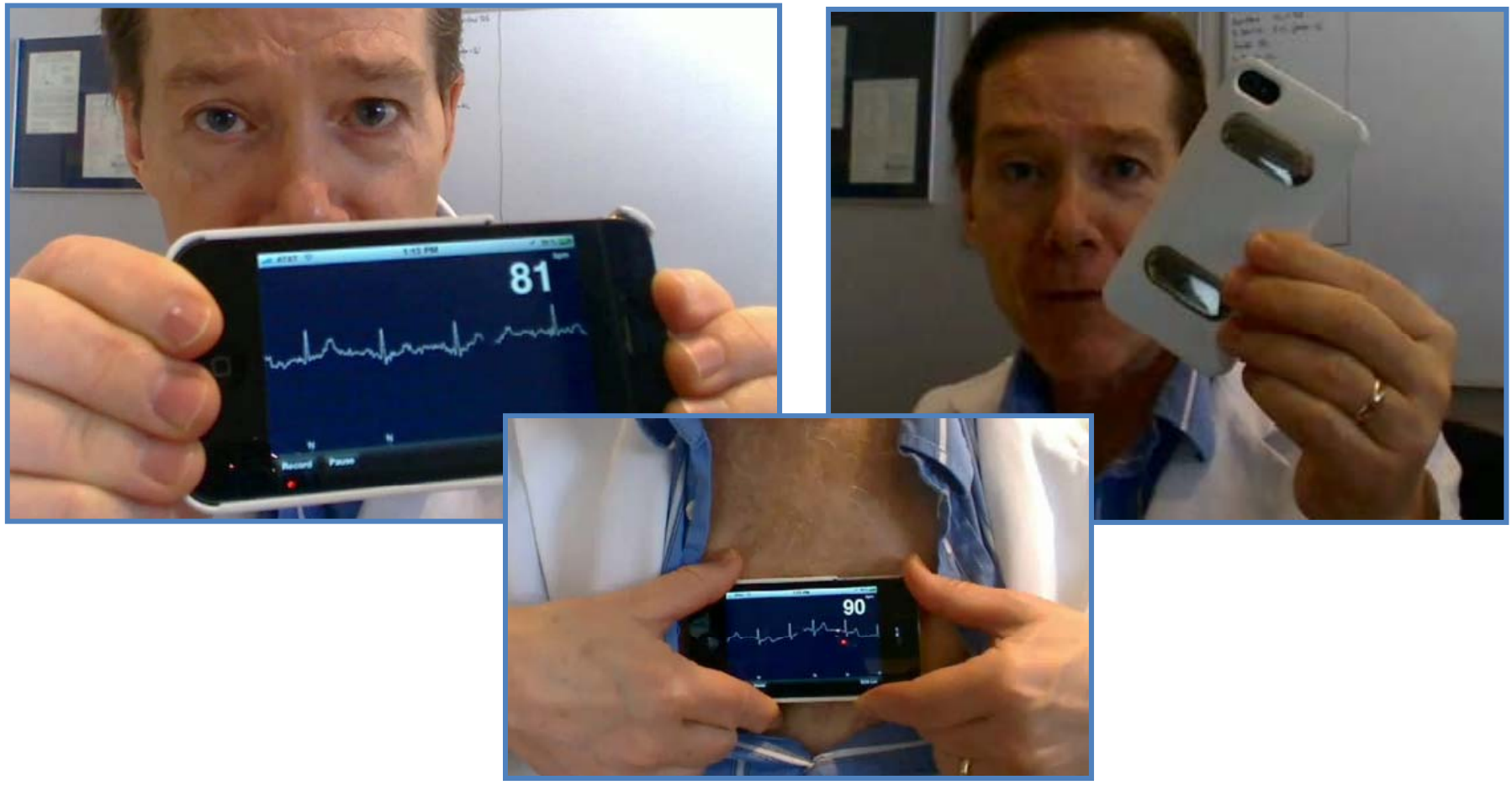
In the last 4 yrs the volume of wireless broadband network is up 8,000 %



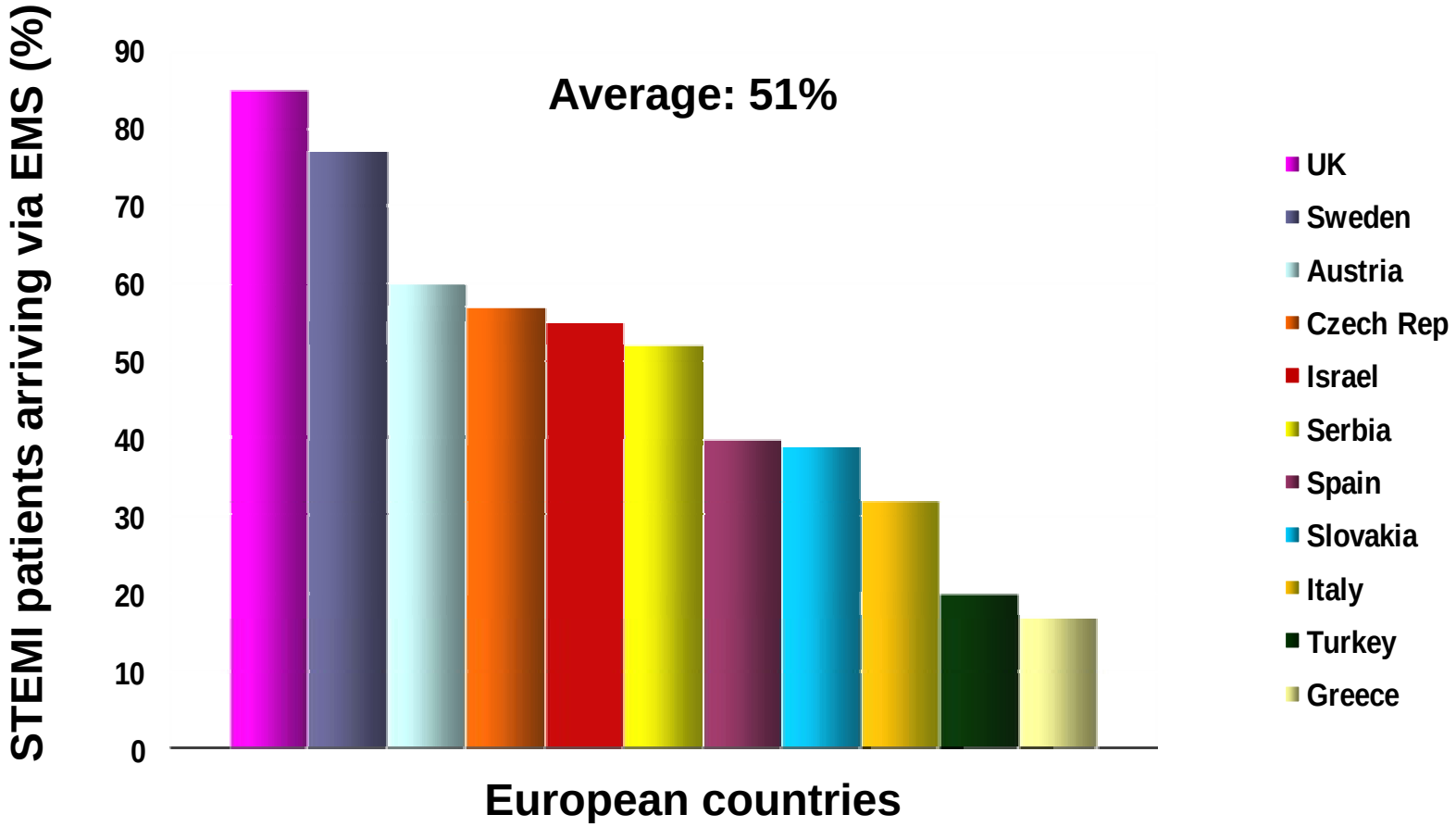


Washington DC Area Hospitals: Ongoing Project.....

Supported by AT&T, to give an iPhone to everyone who treats STEMI patients, including the emergency-room doctors and paramedics, and develop a special iPhone application that can securely transmit high-quality ECG information from the field to the hospital to speed the diagnosis of STEMI. The ECG data can also be easily stored in an electronic medical record.



Proportion of STEMI Patients Arriving at First Hospital via EMS in Europe

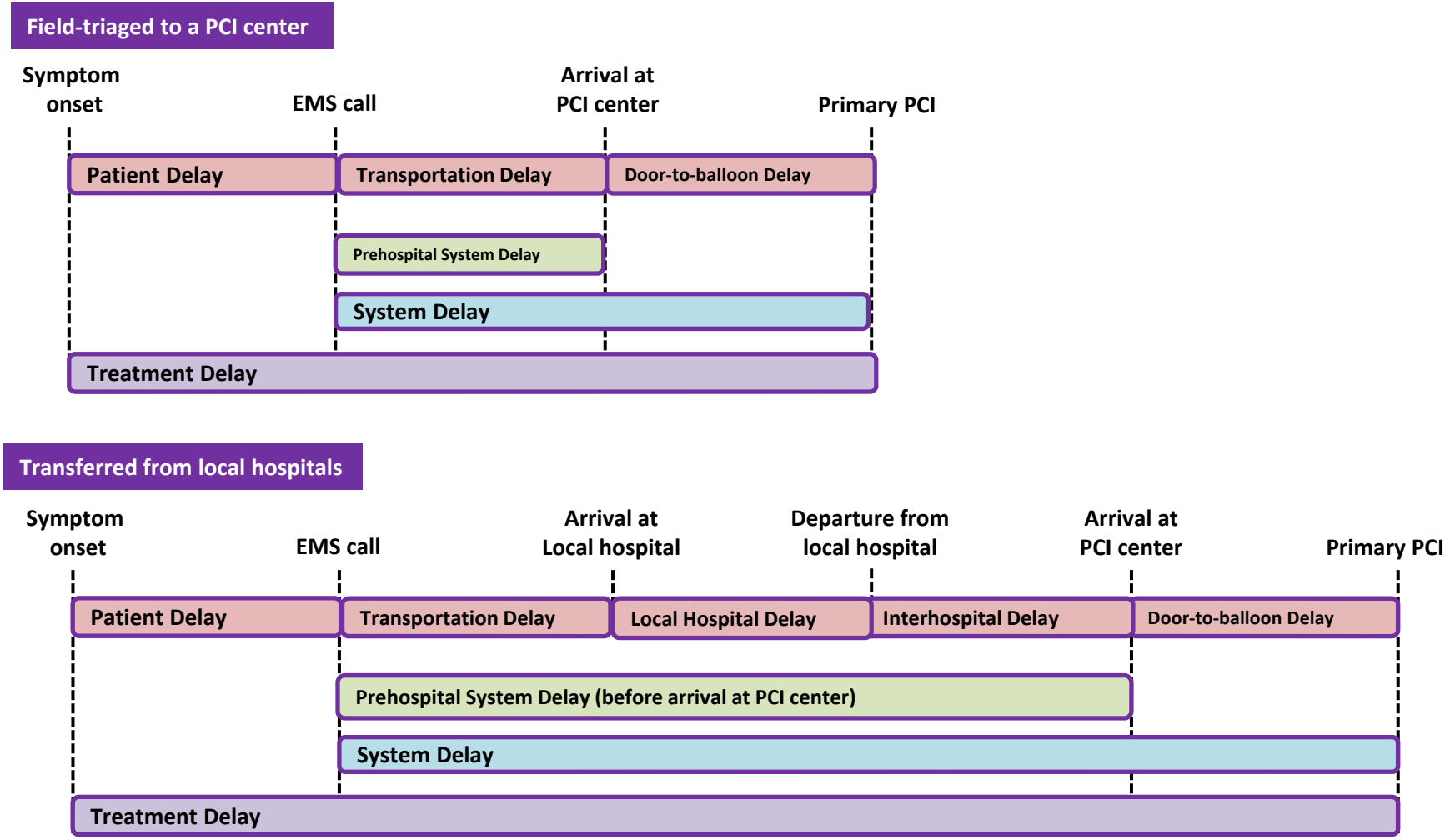


Data source: www.escardio.org/EAPCI

The System Delay

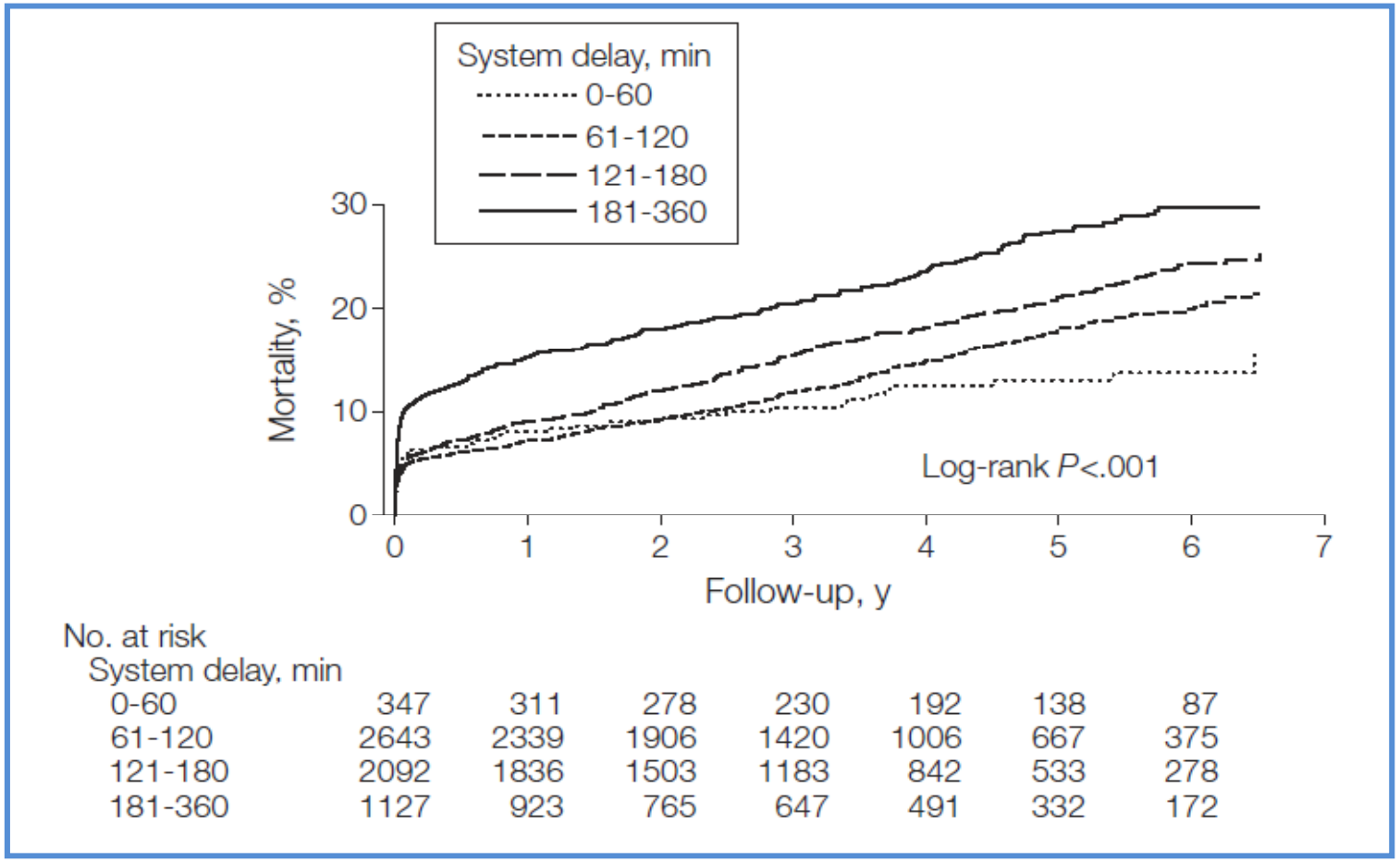


Delays from Symptom Onset to Primary PCI Patients Transported by the EMS



Terkelsen CJ, et al. *JAMA* 2010;304:763

Delays from Symptom Onset to Primary PCI Patients Transported by the EMS

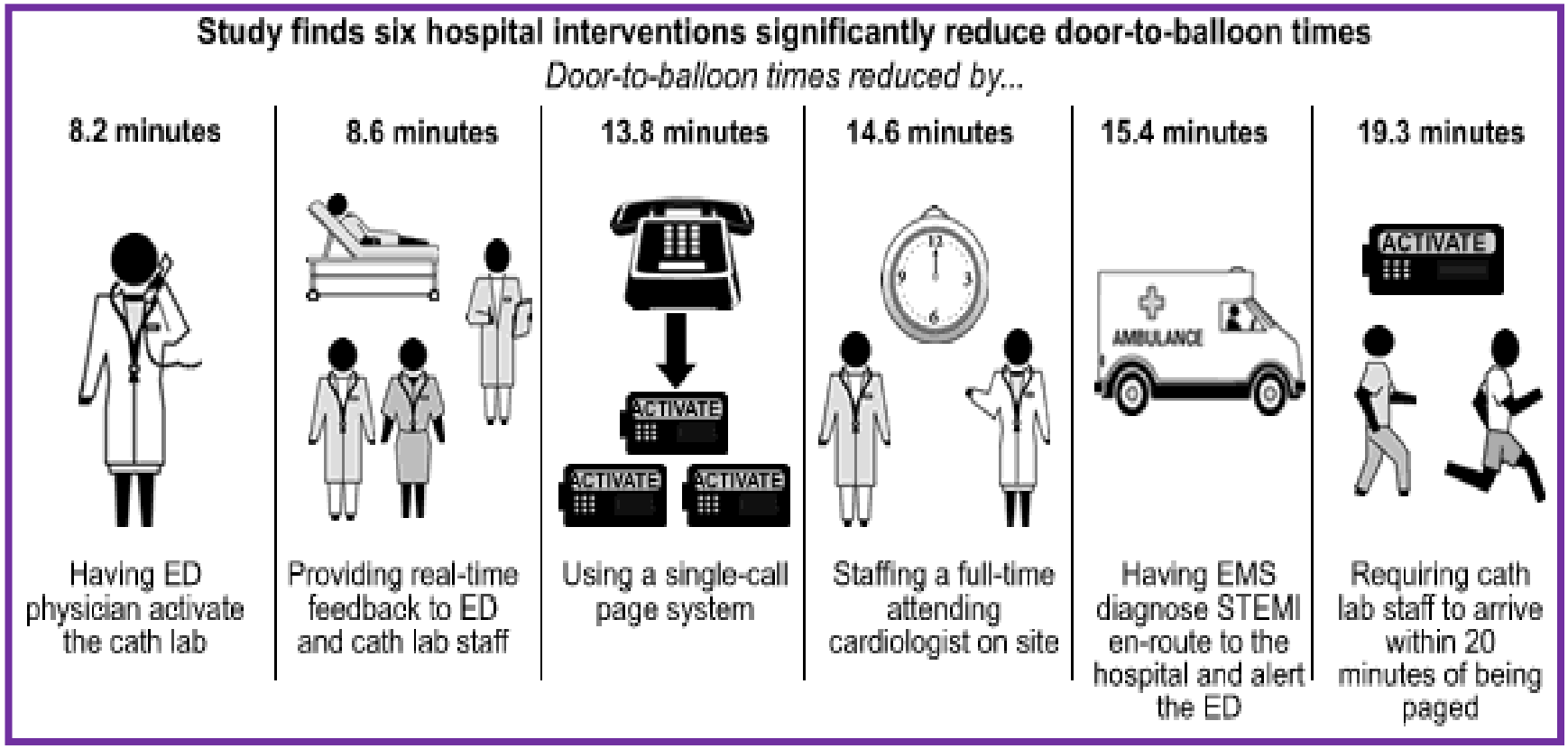


No. at risk

System delay, min							
0-60	347	311	278	230	192	138	87
61-120	2643	2339	1906	1420	1006	667	375
121-180	2092	1836	1503	1183	842	533	278
181-360	1127	923	765	647	491	332	172

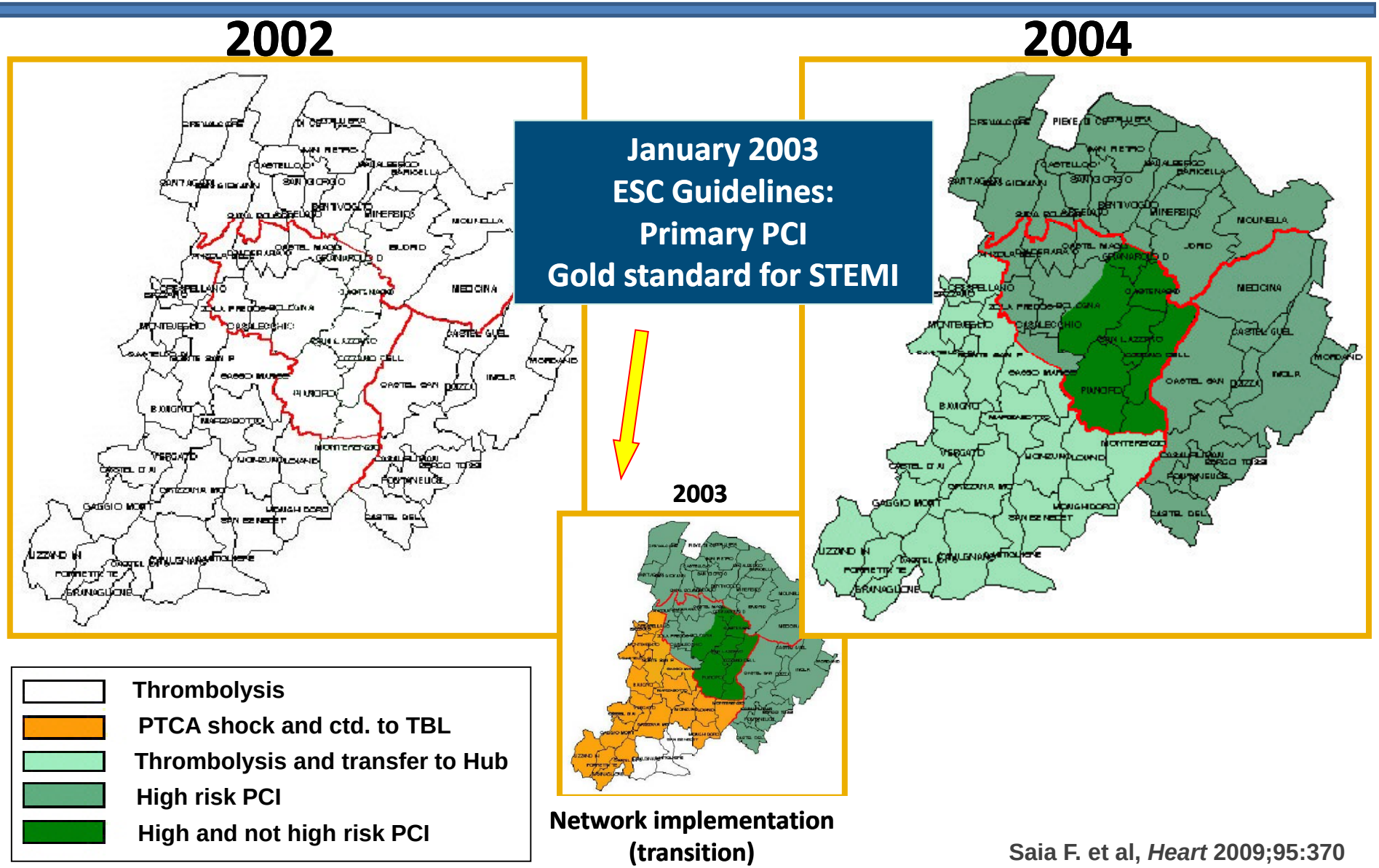
Terkelsen CJ, et al. *JAMA* 2010;304:763

Strategies for reducing the door-to-balloon time in STEMI



Bradley EH, et al. *N Engl J Med* 2006;355:2308

Health Care Agency of the Italian Region Emilia-Romagna

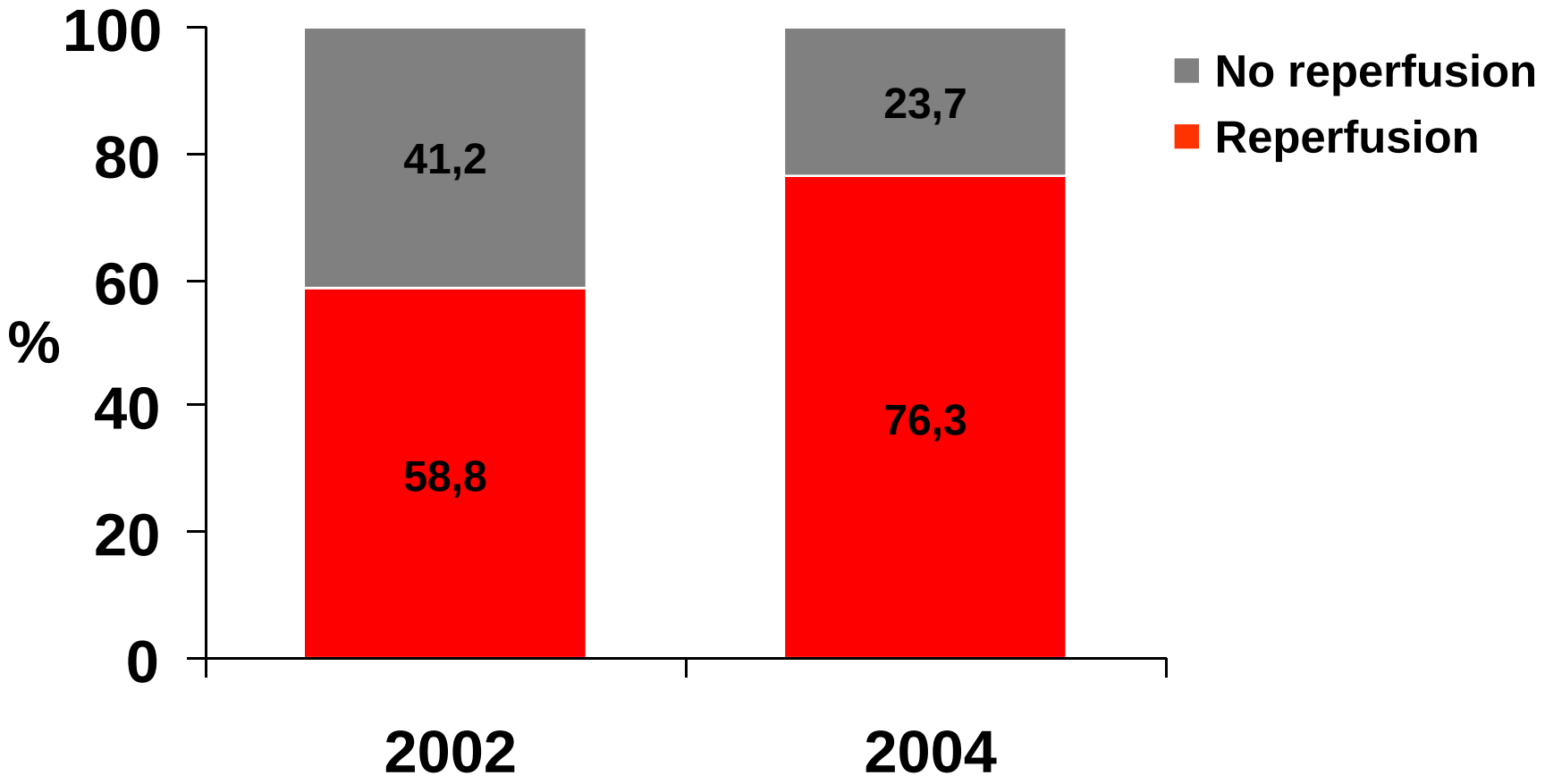


Saia F. et al, *Heart* 2009;95:370

Health Care Agency of the Italian Region Emilia-Romagna

Reperfusion Treatment

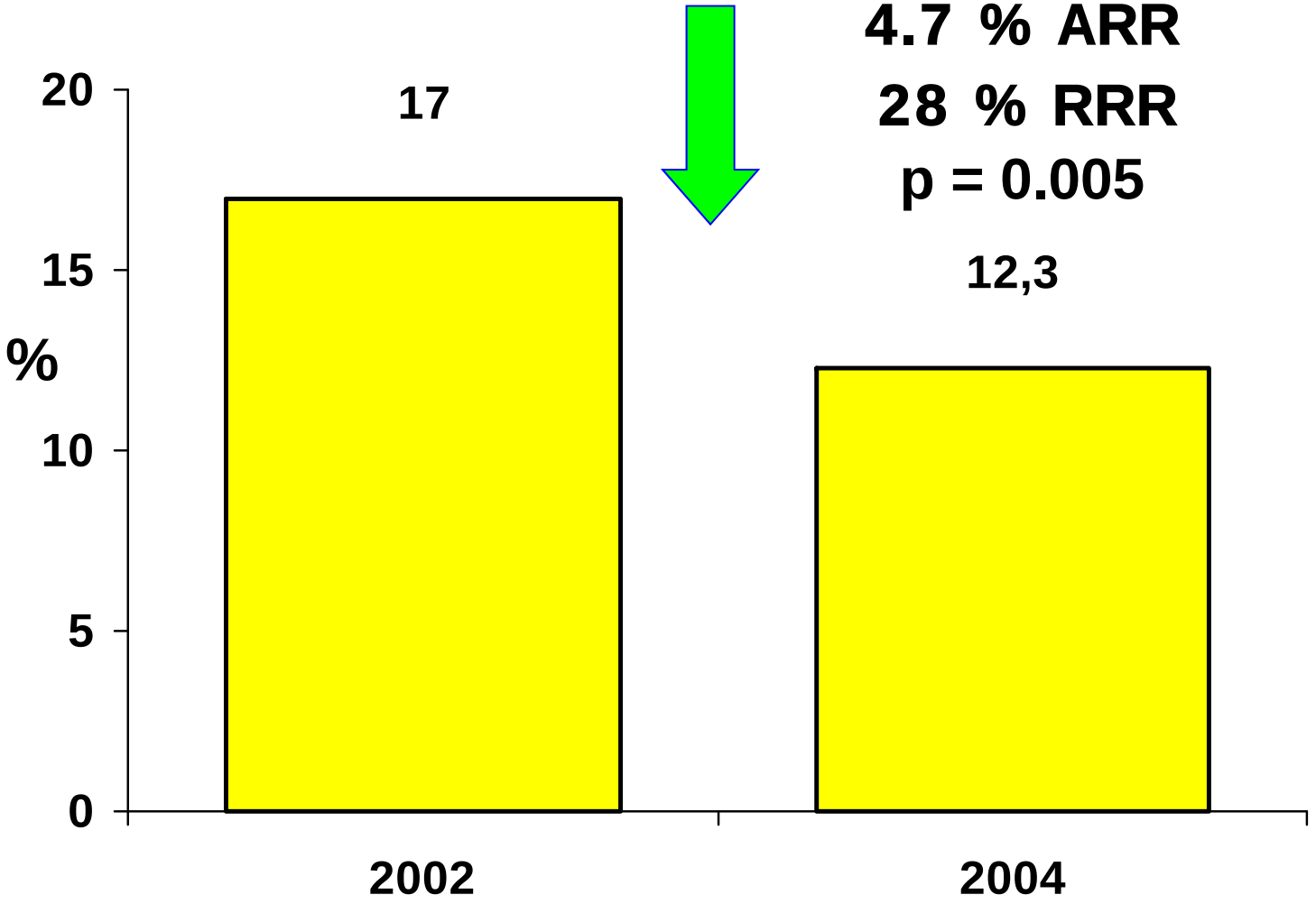
Patients with STEMI < 12h (85%)



Saia F. et al, *Heart* 2009;95:370

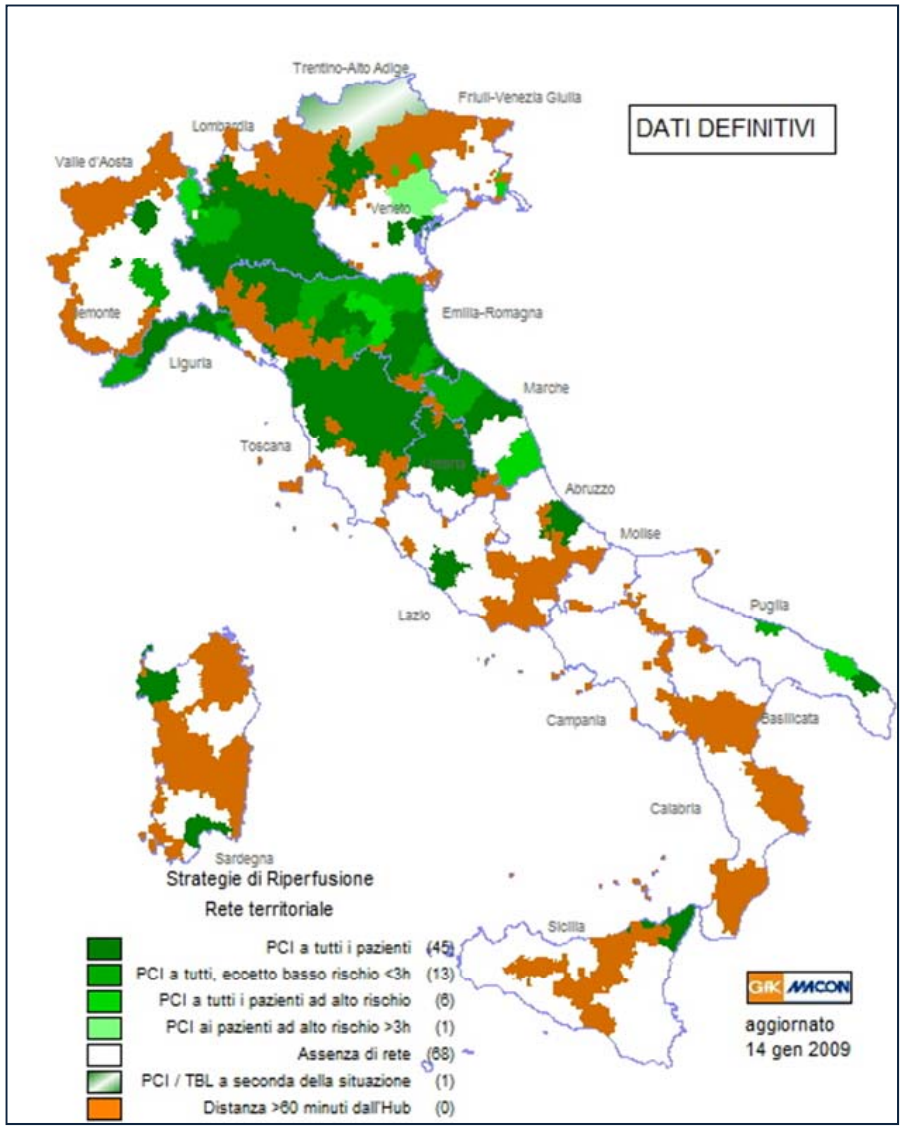
Health Care Agency of the Italian Region Emilia-Romagna

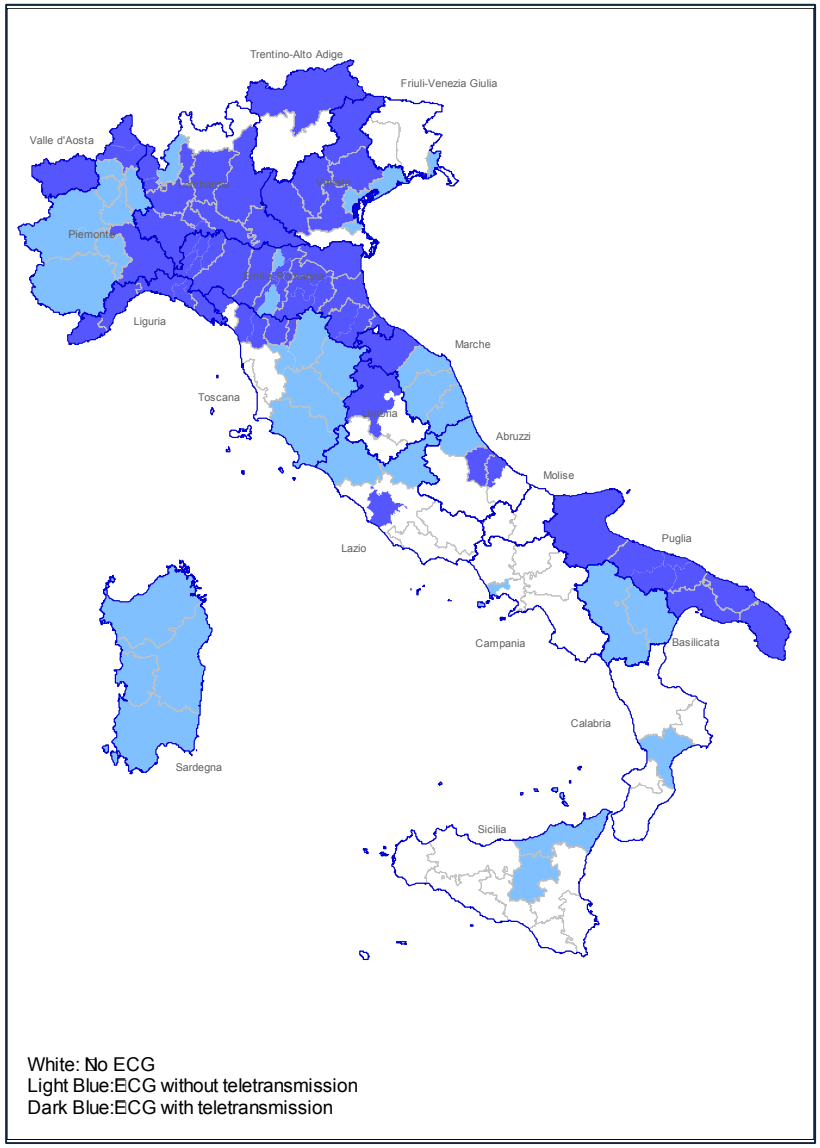
In-hospital mortality



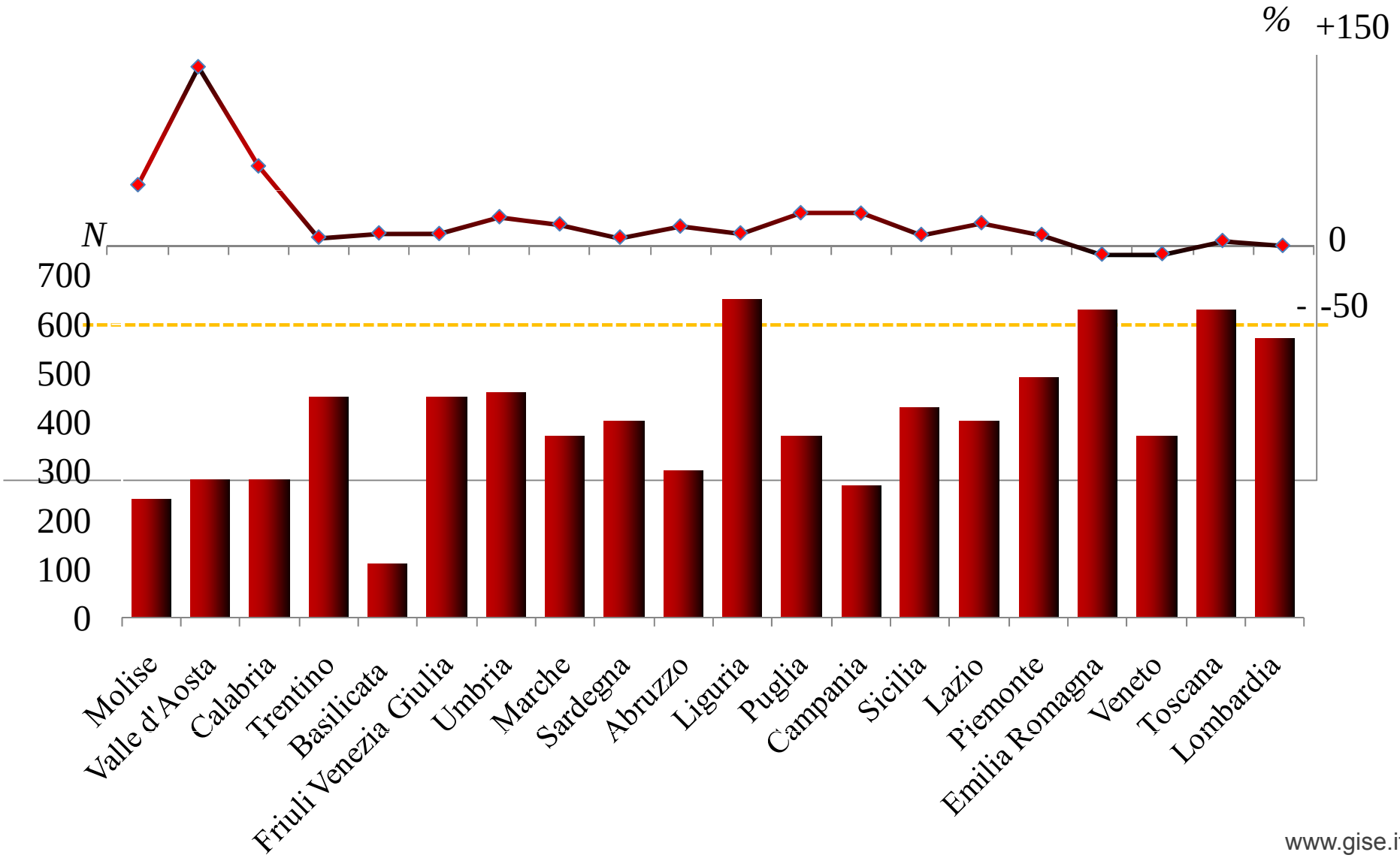
Saia F. et al, *Heart* 2009;95:370

AMI Network in Italy

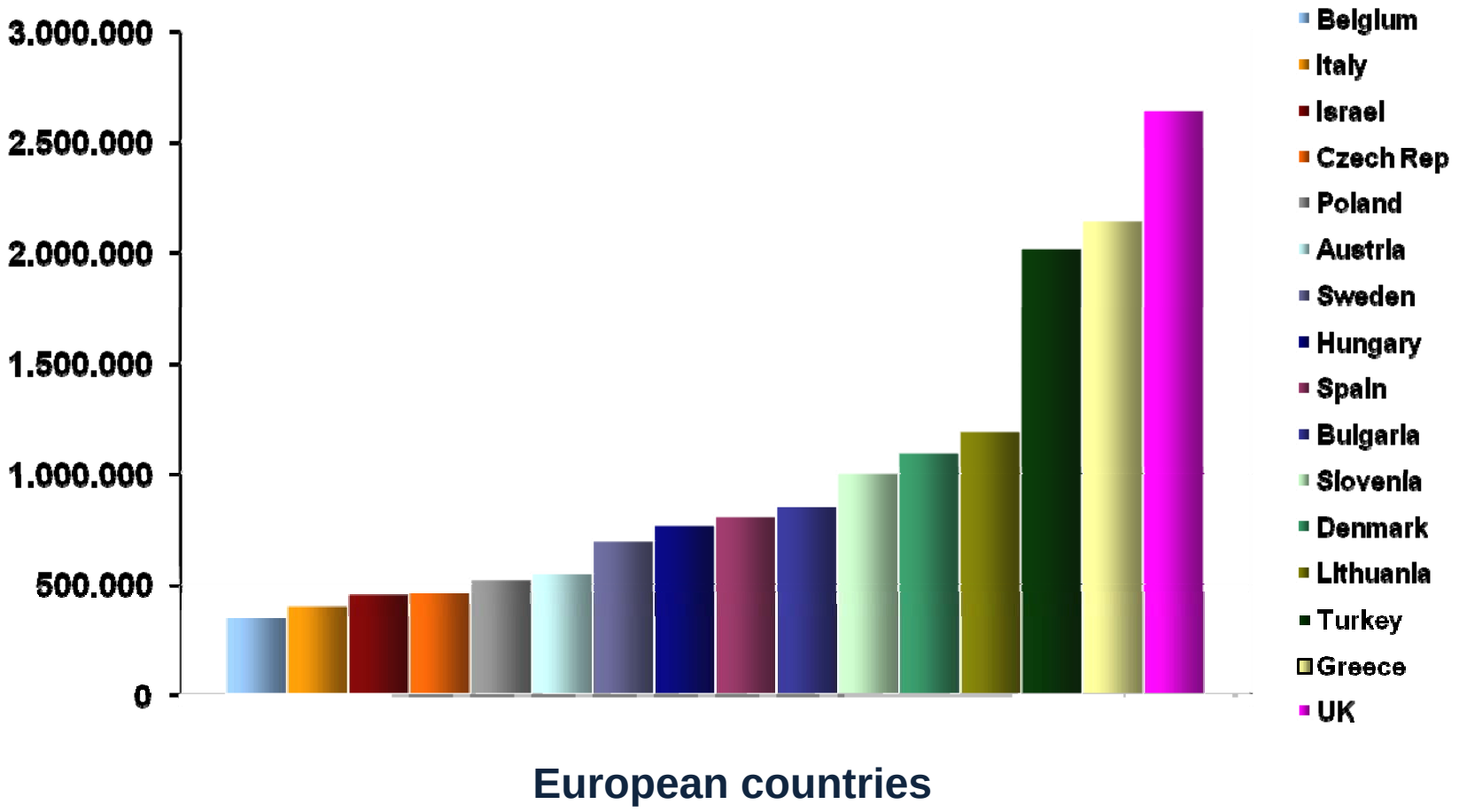




Primary PCI/1.000.000 inhabitants
In Italy

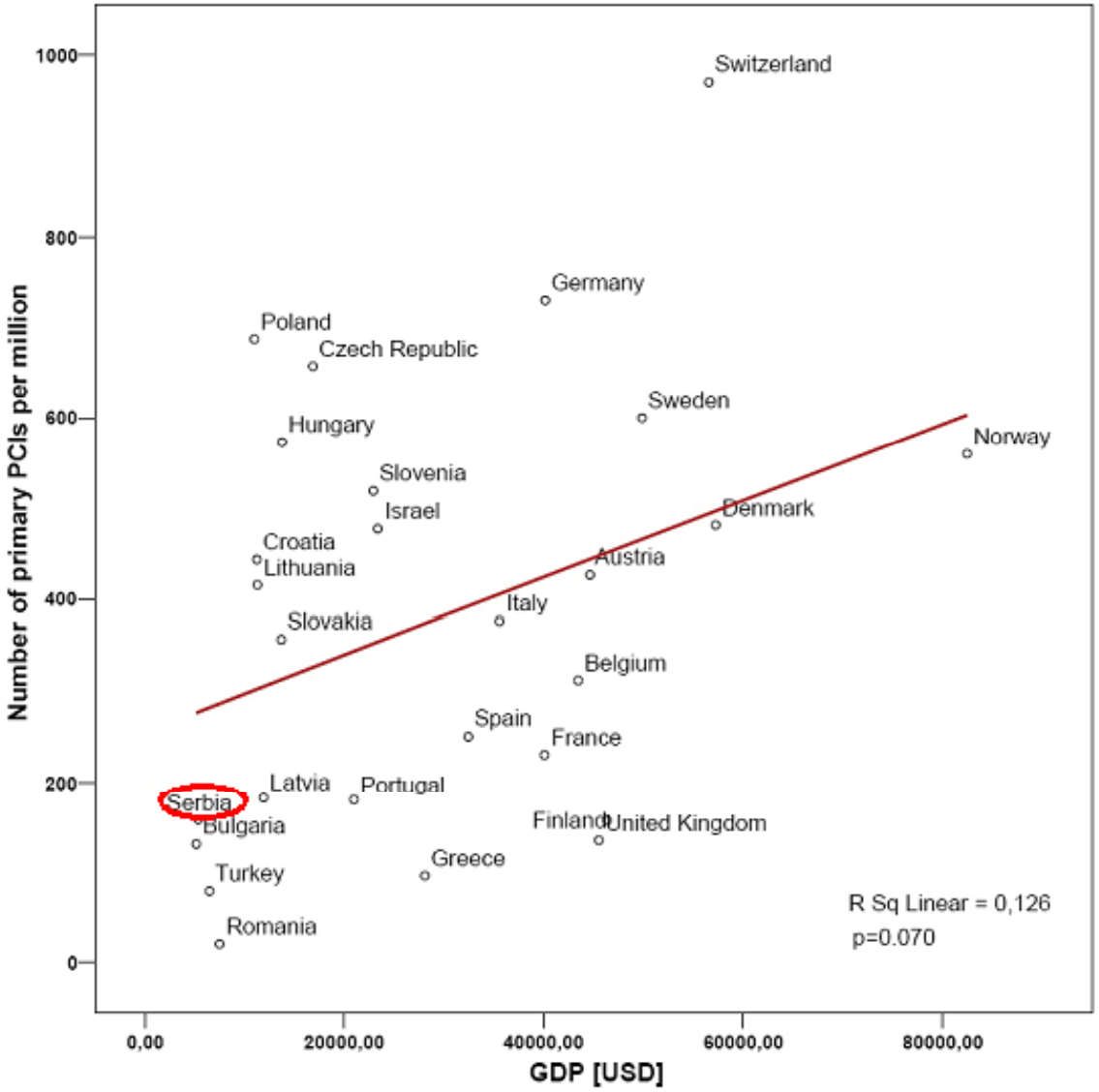


Population per 24/7 primary PCI centre



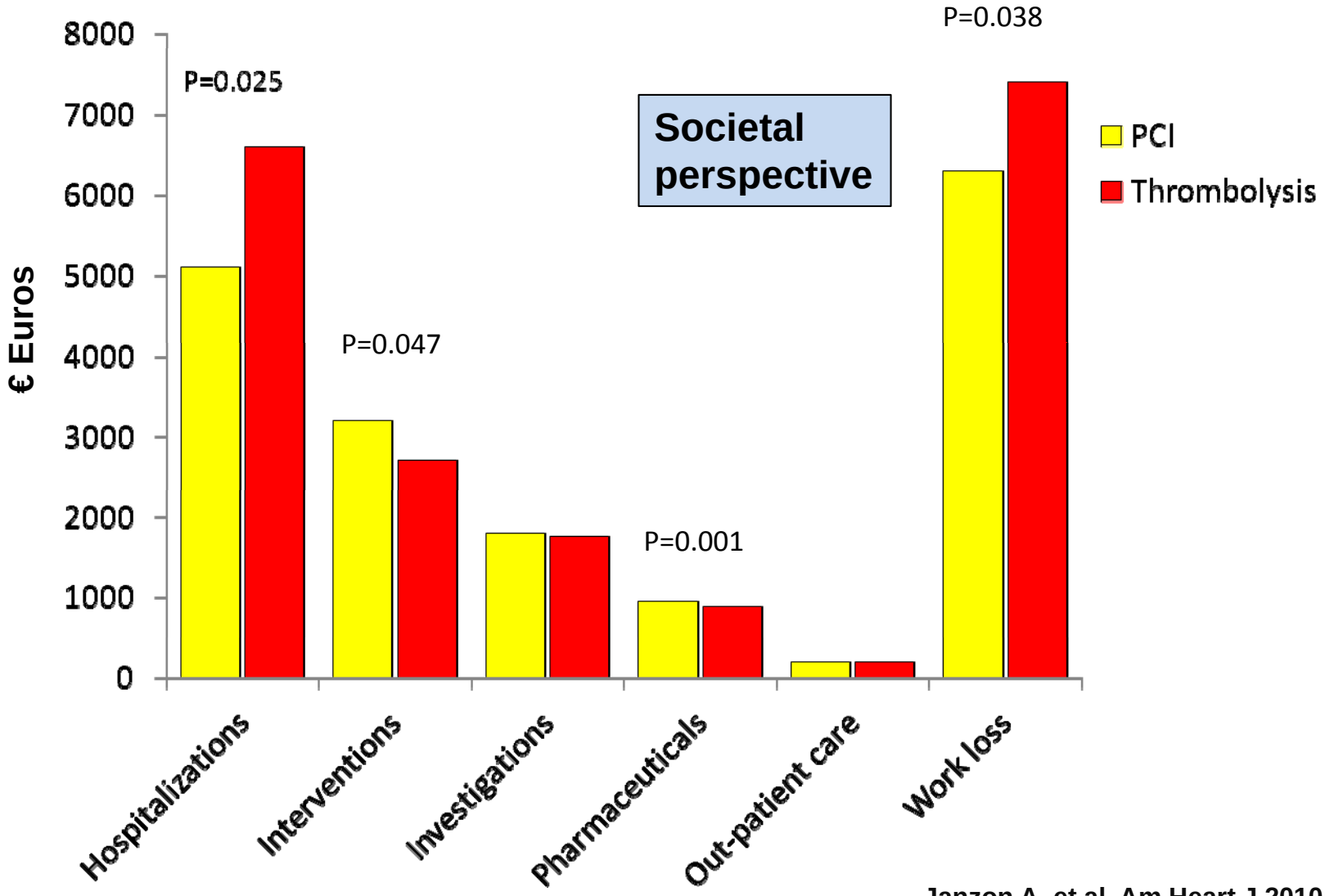
Data source: www.escardio.org/EAPCI

Number of pPCI in STEMI and BDP in Different Countries



Widimsky P et al.. *Eur Heart J* 2009

Costs 1-Year Follow-Up Sweden



Janzon A, et al. Am Heart J 2010;160:322

Stent for Life
INITIATIVE

To improve the delivery and patient access to the life saving indications of PCI thereby reduce the mortality and morbidity of patients suffering from acute coronary syndromes.



EAPCI

www.stentforlife.com

euro PCR

Stent for Life Initiative
Objectives

1. Define regions/countries with an unmet medical need in the optimal treatment of ACS.

2. Implement an action program to increase patient access to primary PCI where indicated:

- ✓ *To increase the use of primary PCI to more than 70% among all ST segment elevation myocardial infarction patients,*

- ✓ *To achieve primary PCI rates of more than 600 per one million inhabitants per year,*

- ✓ *To offer 24/7 service for primary PCI procedures at all invasive facilities to cover the country STEMI population need.*

STENT FOR LIFE

Lessons Learned
For Primary PCI Implementation

- **Emergency medical services (EMS)**
  EMS staff training is more important that the EMS staff structure
  ECG teletransmission

- **Networks and infrastructure**
  Regional networks, involving EMS, non-PCI hospitals and PCI centres.
  Cover an area comprising a population of approximately 0.5 million (0.3-1 Mln) people
  The network should work to “please all” (patients and all network members)

- **Transport, time delays**
  Bypass the nearest non-PCI H as well as the ER or ICU in the PCI-centre

- **Cathlab staffing, organisation of cathlab work**
  Economic approach: 1 cardiologist (on call) + 1 nurse (staying in the cathlab 24/7), with additional staff (whenever necessary) coming from the ICU

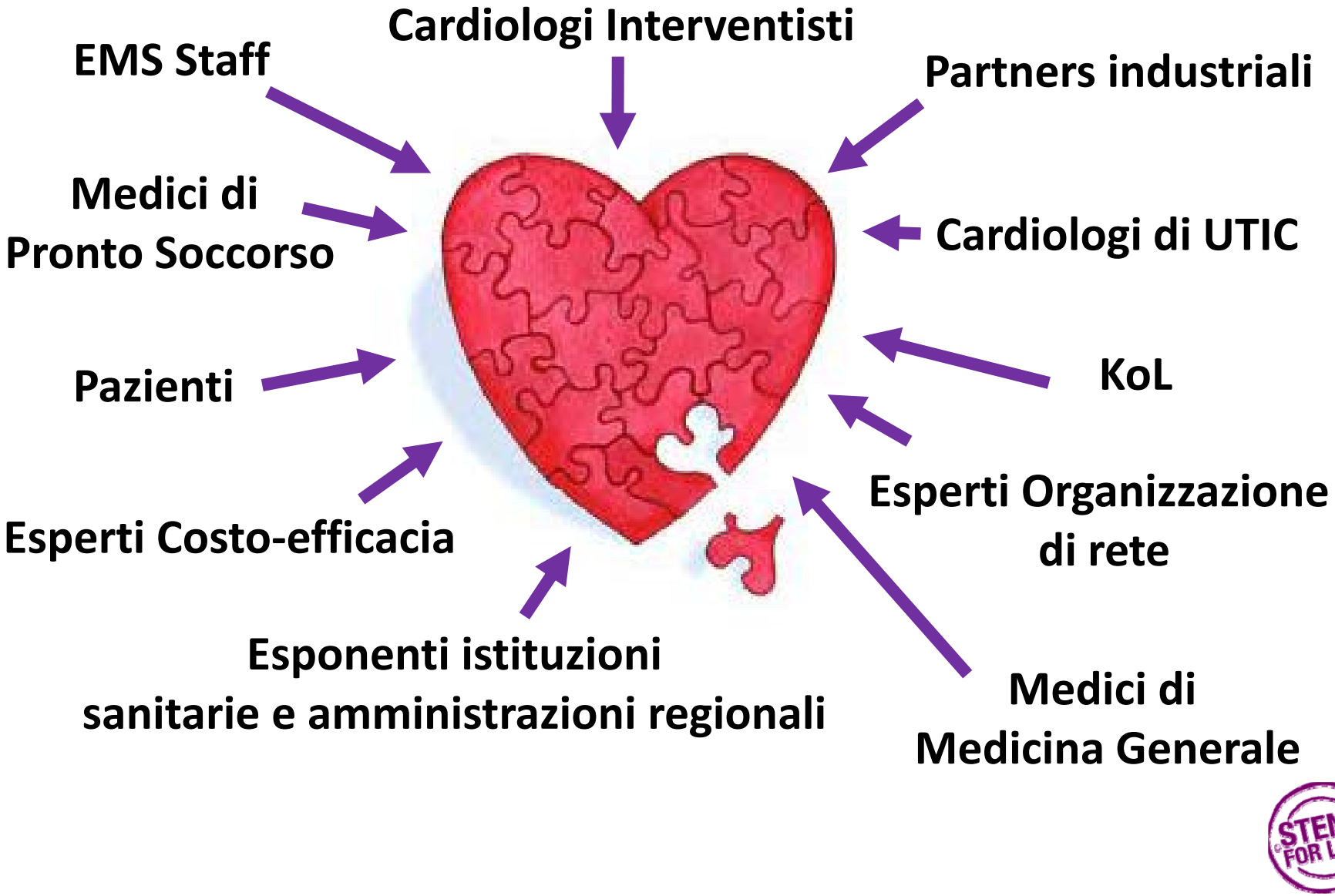
- **Financial aspects and political issues**
  Motivating the existing (available) staff or increasing the cathlab staff

- **Registries, quality control**

- **Public campaigns**

Knot J, et al. *EuroIntervention* 2009;5:299

Unirsi per fare la differenza e riuscire a cambiare



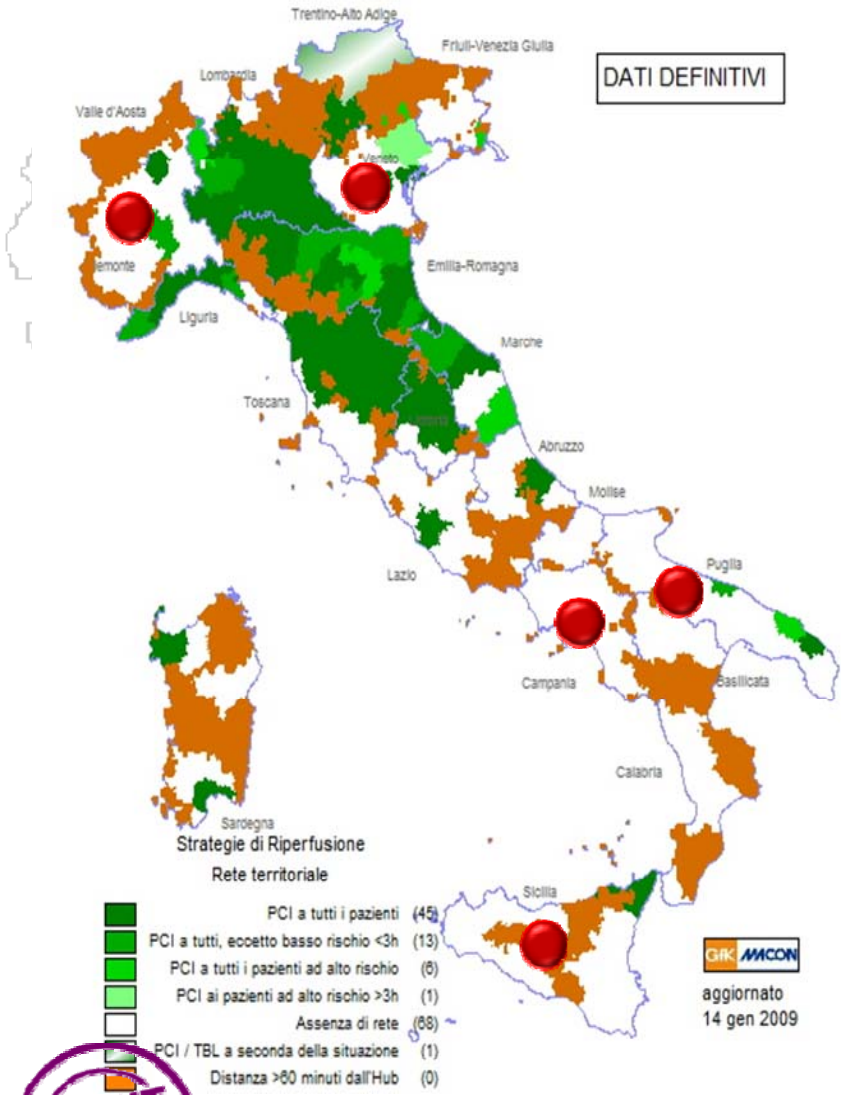
Stent for Life Initiative
ITALIA

Responsabile del progetto SFL Italia	Giulio Guagliumi, Presidente SICI-GISE
Steering Committee	Francesco Bermano, Direttore Centrale Operativa 118 Genova Francesco Bovenzi, Presidente eletto ANMCO Ovidio Brignoli, Presidente SIMG Raffaele Calabrò, Commissione Permanente XII Igiene e Sanità Claudio Cavallini, Consiglio Direttivo SICI-GISE Caterina Ferrero, Assessore Sanità Regione Piemonte Tommaso Fiore, Assessore Sanità Regione Puglia Ciro Indolfi, Responsabile sito web SICI-GISE Attilio Martorana, Assessore Sanità Regione Basilicata Antonio Marzocchi, Responsabile progetti IMA web e GISE Network Massimo Russo, Assessore Sanità Regione Sicilia Marco Salmoiraghi, Direttore Sanitario AREU Regione Lombardia Fernando Schiraldi, Presidente SIMEU Corrado Tamburino, Past President SICI-GISE
Executive Board	G. Guagliumi, F.Bermano, F. Bovenzi, L. De Luca, A. Marzocchi

Coordinatore Nazionale	Leonardo De Luca, SICI-GISE
Task Force	B. Alagna, V Ambrosini, A Bongo, A Bortone, F Bux, P Calabrò, G Calculli, M Campisi, G Carbone, A Citarella, M D'Amico, G De Luca, R De Luca, M Di Biase, E Di Lorenzo, F Di Pede, A Dellavalle, F Enrichens, G Esposito, A Ferrari, A Fiscella, M Furnari, P Giudice, F Greco, L LaVecchia, P Li Santi, B Magro, R Mannella, D Mantoan, A Marchese, F Marchetta, S Marra, M Marzegalli, C Mauro, A Merlino, L Mileti, P Monferino, A Montinaro, E Mossuti, L My, A Nicosia, Z Olivari, D Pieri, F Piscione, M Rapellino, B Reimers, P Rosi, M Scherillo, N Signore, A Stabile, G Tarantini, R Tarricone, G Tarsia, F Tiecco, M Vasco, C Zanon, A Zoli.
Analisi costo efficacia	CERGAS Università Bocconi
Comunicazione	WEBER Shandwick

STENT FOR LIFE

Stent for Life Italia



Regioni	*Inhabitant N*	*Mean Age*
Piemonte	4.446.230	44,7
Valle d'Aosta	127.866	43,5
Lombardia	9.826.141	42,9
Trentino Alto Adige	1.028.260	41,4
Veneto	4.912.438	42,8
Friuli Venezia Giulia	1.234.079	45,2
Liguria	1.615.986	47,1
Emilia Romagna	4.395.569	44,4
Toscana	3.730.130	45,0
Umbria	900.790	44,6
Marche	1.559.542	44,1
Lazio	5.681.868	42,7
Abruzzo	1.338.898	43,5
Molise	320.229	44,0
Campania	5.824.662	39,5
Puglia	4.084.035	41,3
Basilicata	588.879	42,6
Calabria	2.009.330	41,5
Sicilia	5.042.992	41,0
Sardegna	1.672.404	43,0

Stent for Life Initiative
ITALIA

Moderatori e Relatori

Bernardo Alagna	*Palermo*
Lucia Borsellino	*Palermo*
Giuditta Callea	*Milano*
Vincenzo Cirrincione	*Palermo*
Giovanni De Luca	*Palermo*
Leonardo De Luca	*Roma*
Antonio Fiscella	*Catania*
Maria Grazia Furnari	*Palermo*
Clemente Giuffrida	*Messina*
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Maurizio Guizzardi	*Palermo*
Fausto Marchetta	*Bologna*
Antonio Marzocchi	*Bologna*
Ernesto Mossuti	*Siracusa*
Antonino Nicosia	*Ragusa*
Massimo Russo	*Palermo*
Giovanni Saccone	*Sciacca*
Amerigo Stabile	*Palermo*
Corrado Tamburino	*Catania*

Informazioni generali

Svolgimento dei lavori

Sessione "mattutina"

La prima sessione sarà dedicata all' illustrazione del Progetto Stent for Life e all'analisi del contesto italiano.

Nella seconda sessione, dopo l'analisi di contesto siciliana si passerà alla presentazione del documento regionale di Rete per l'infarto miocardico acuto in Sicilia, dando ampio spazio alla discussione inter-attiva con tutti gli "attori" della rete presenti.
Il tutto si svolgerà nella "Sala Convegni".

Sessione "pomeridiana"

I partecipanti in base dell'appartenenza geografica alle "macro-aree"della rete corrispondenti ai bacini del 118, si riuniranno in gruppi per iniziare a condividere il documento in dettaglio ed adattarlo alle diverse realtà locali, ospedaliere e territoriali.
I gruppi lavoreranno nella "Sala Convegni" e nelle Sale 2, 4 e 5.

Patrocini

Società Italiana di Cardiologia Invasiva

Segreteria Organizzativa

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TREATMENT OF ACUTE MYOCARDIAL INFARCTION IN EUROPE: REVIEW OF CURRENT MODELS AND PROPOSAL OF OPTIMAL COMMON STANDARDS

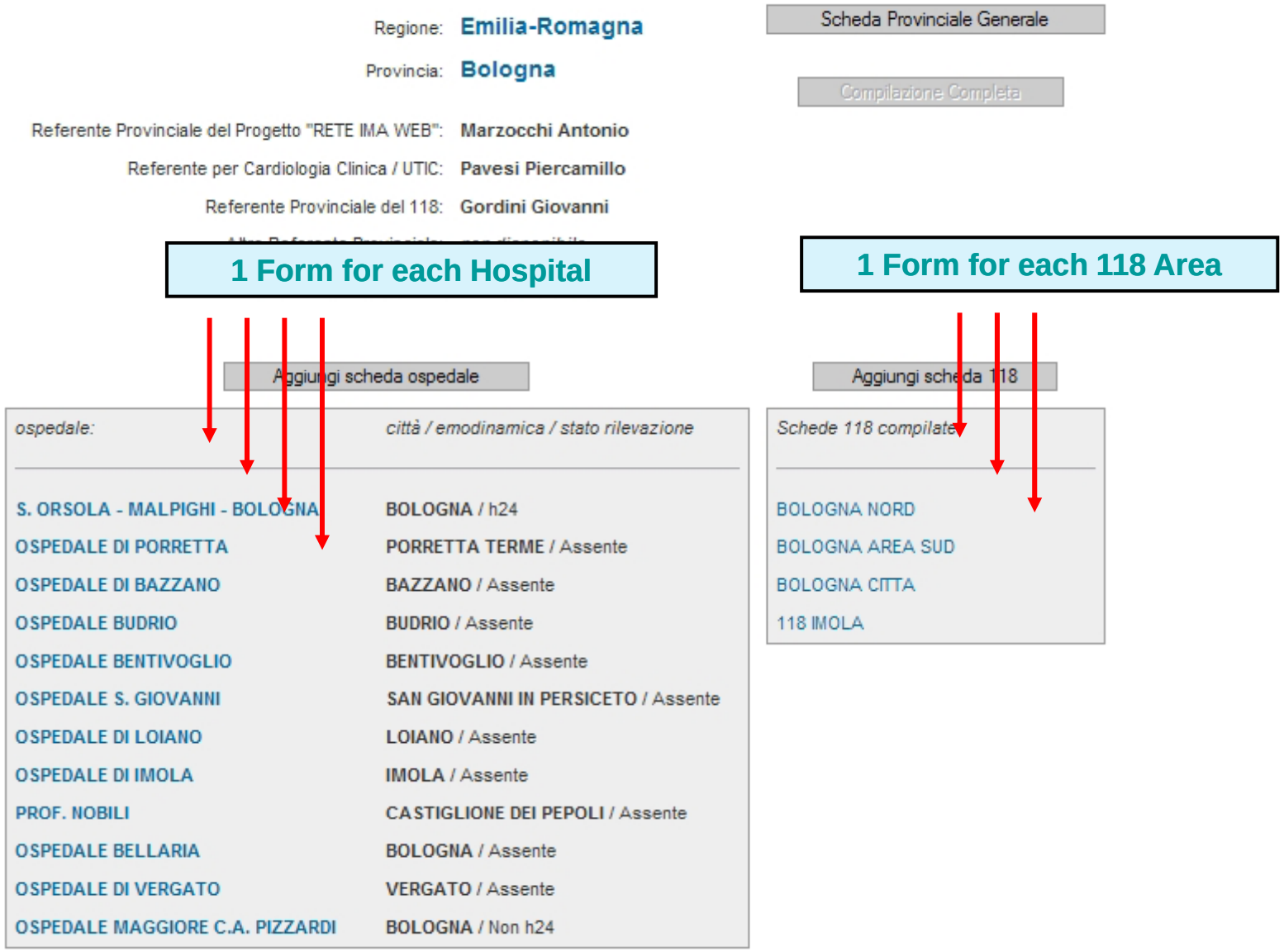
London
July 1st, 2011



Key Activities for the Next Months

- Schedule further audience with some local health commissioners in order to illustrate in detail the initiative and the plans of action
- Attend and support local health commissions meetings for planning and/or implementing primary PCI networks
- Design a survey on health costs of STEMI reperfusion in a target region without a primary PCI network and compare the results with a region where a well organized STEMI system is present
- Organize SFL meetings with key opinion leaders and policy makers in each target region
- II Edition of IMA Web Network
- Involve new industry partners in the initiative

IMA Web Network,
II Edition



Analisi Costo-efficacia (CEA)

Bocconi

Università Commerciale Luigi Bocconi

In un contesto di risorse economiche sempre più limitate, è cruciale la valutazione dei benefici apportati dalle tecnologie in relazione ai costi maggiori introdotti

⇓

Necessità di combinare evidenza clinica ed efficienza economica

⇓

Analisi costo-efficacia

Rosanna Tarricone

STENT FOR LIFE

The Tension between Needing to Improve Care and Knowing How to do it!

- **The need to improve the quality of care for STEMI pts is urgent. *We cannot wait!***
- **Any effort must be made to shorten delays and to improve quality**
- **Emulating successful organizations can speed effective improvement**
- **National Societies have to make every effort to ensure that the messages derived from international guidelines are relayed at national and regional level, in order to make sure that the proposed strategies and recommendations are implemented locally**