EHRA Summit 2010

E-health and personalized health care in arrhythmias

22-23 March 2010 – European Heart House Sophia Antipolis

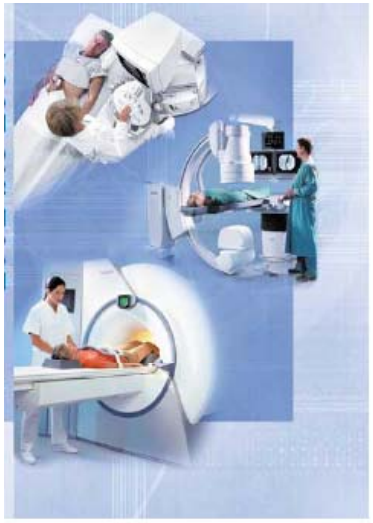
Developing large-scale eHealth programmes

Telemedicine toolkit: defining the term

Nicole Denjoy

COCIR Secretary General

What is COCIR?



COCIR is representing the Industry Voice in Medical Imaging, Electromedical and Healthcare IT

Our Industry is leading in innovative healthcare technologies and provides solutions for the complete care cycle

Towards sustainable Healthcare in the EU

European Society of Cardiologists (ESC) drives Prevention up the EU Health Agenda

"The big hope now", said ESC President Professor Ferrari, "is that under the 2010 Spanish Presidency of the EU CVD prevention will be given a Council recommendation. The ESC has been making strenuous efforts to achieve this. An *EU Council recommendation* represents the highest EU instrument in Healthcare."

Healthcare Policy reform to drive sustainability

COCIR's five priority goals	EU delivery mechanism
1. Focus on disease prevention	Disease risk stratification & screening programs
2. Encourage 'best practice' patient focused processes	Creation of more integrated care practices
3. Leverage Information Technology	Interoperable IT solutions that drive quality and efficiency
4. Speed-up the adoption of new medical methods and technologies	Proven ability to enhance the efficiency of medical care
5. Implement value-based outcome focused reimbursement systems	Provide incentives to encourage & reward more integrated care delivery

A paradigm shift is needed …

How to build confidence in and acceptance of TeleHealth services?

COCIR Telemedicine Toolkit

What?

- COCIR vision developped in 5 recommendations
- Need a common terminology → Glossary of terms
- Centralisation of Compilation of cost-effectiveness studies demonstrating value-added of telehealth
  - Current focus is on Diabetes, pulmonary diseases and heart failure

Why?

- To secure better access to healthcare
- To empower patients
- To reduce health inequalities
- To optimise efficiency of the total healthcare system

Chronical illnesses not sufficiently targeted in modern healthcare systems

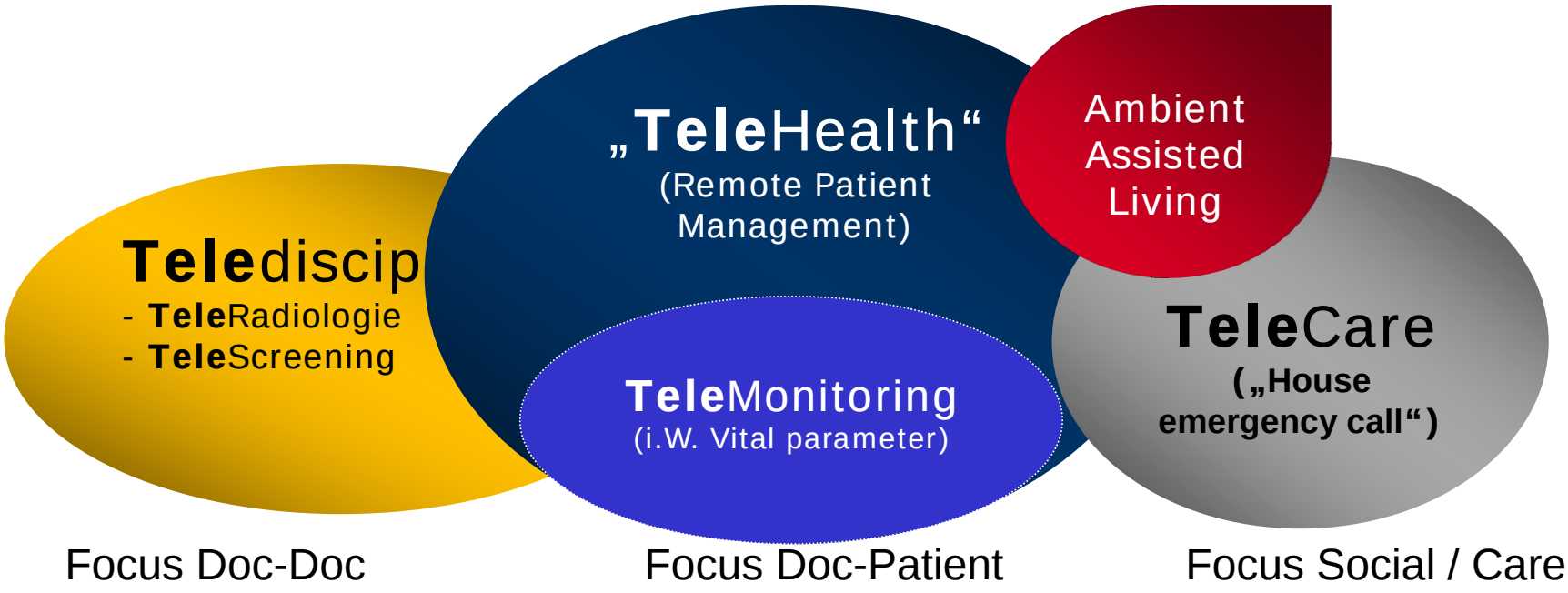
- **Healthcare delivery currently focused on acute care …**
  - Primary/secondary care focused on case-by-case treatments and responses to acute medical problems
  - Reimbursement schemes focused on single & short-term intervention

- **Whilst chronical illnesses become more important …**
  - Unhealthy lifestyles promote chronic conditions
  - Aging population

- **But Healthcare for chronically ill not well addressed**
  - Prevention measures
  - Long-term and continuous treatment

The Bigger Picture -
What is Telemedicine?

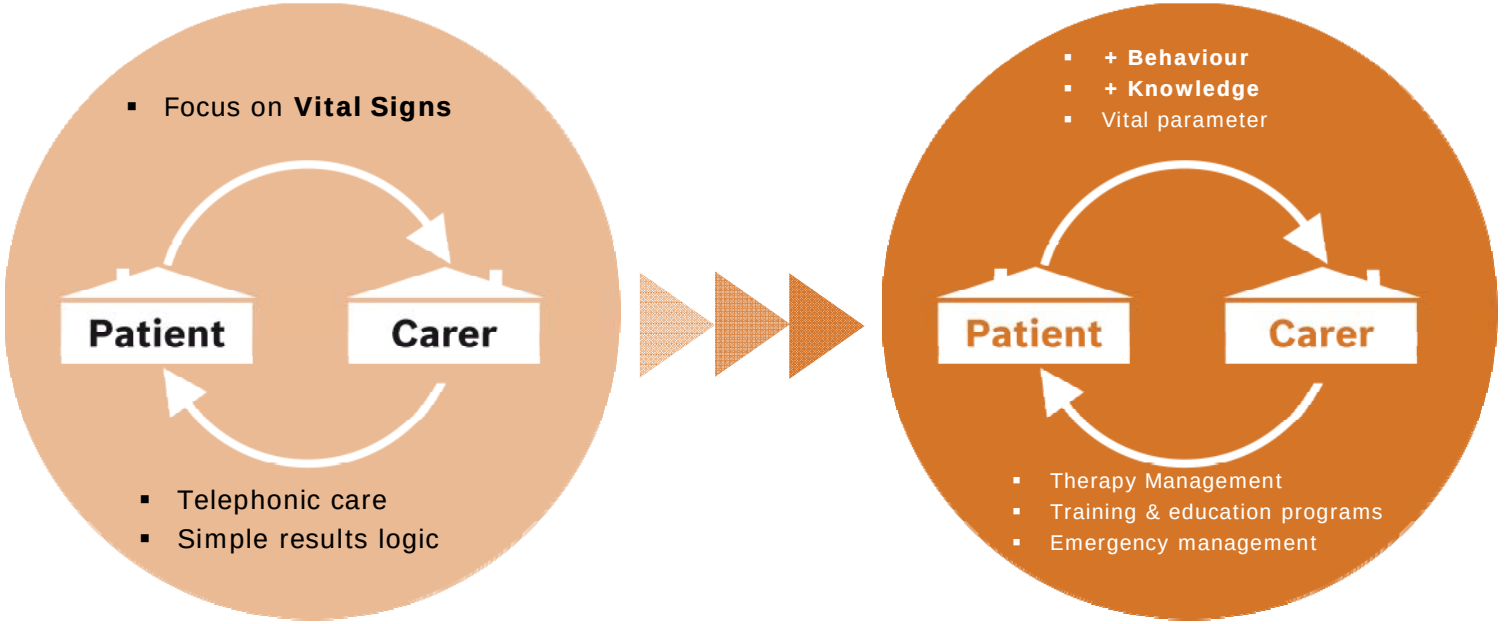
Telehealth/medicine can be defined as the delivery of healthcare services through the use of Information and Communication Technologies (ICT) in a situation where the actors are not at the same location.



Focus on **Telehealth**

1. **Tele**monitoring

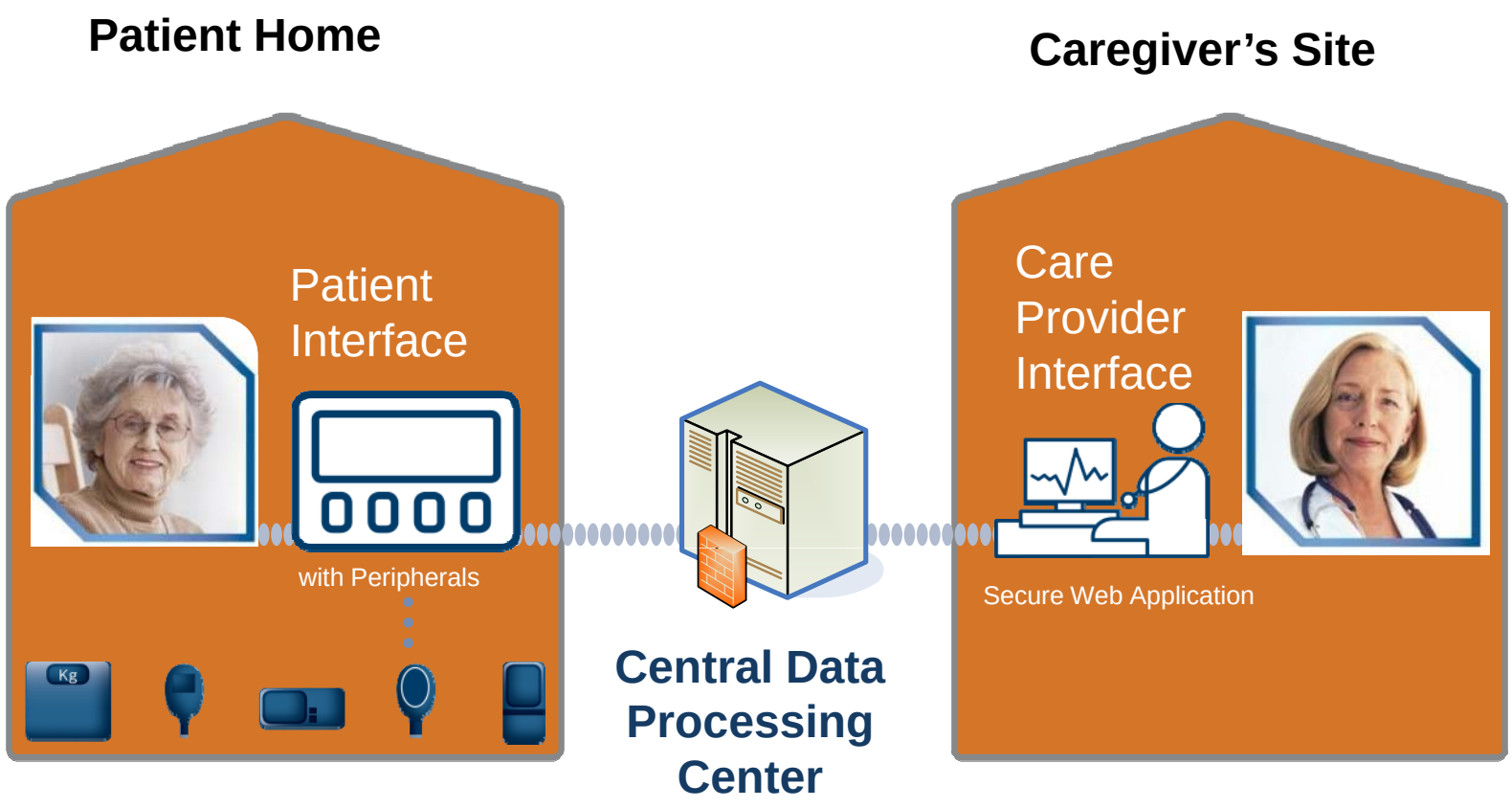
2. Tele**health**



Telemonitoring is a subset - or often the first implementation stage of Tele**health**

Telehealth System Overview

Linking patient with care provider



Data communication by POTS (Plain Old Telephone System), broadband, cellular, etc.

How to build confidence in and acceptance of TeleHealth services?

Clinical Outcomes

- **Compliance** improvements
- **Morbidity and mortality** reduction
- Better **Health-related Quality of Life**

Healthcare Cost

- Direct **cost reductions**: Hospitalisation, emergency incidents, GP visits, medication, etc.

Acceptance

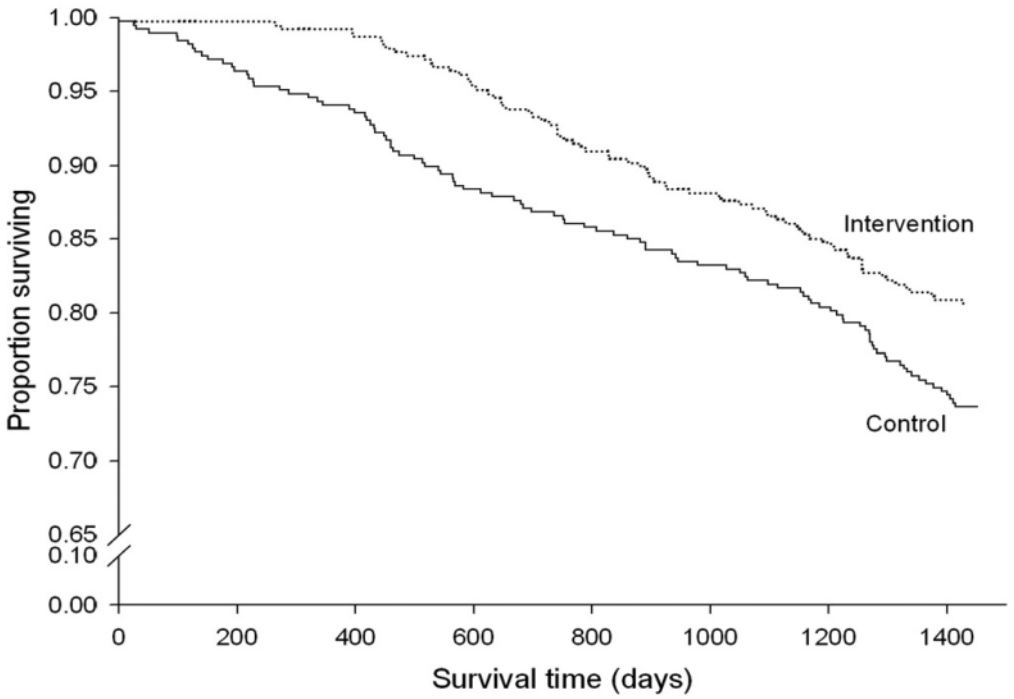
- **Patient usage** of service and satisfaction
- **Physician acceptance** of new service

A large no. of studies and trials have proven the various positive outcomes of Telehealth enabled Healthcare.

Diabetes Mellitus | Mortality with diabetes

Chumbler et al. 2009

- Clinical
- Cost
- Acceptance



Mean Survival Time: 1348 vs. 1278 days (p=0.015)

Crude Mortality Rate: 19% vs. 26% (p<0.05)

Source: Chumbler et al. (2009), Mortality risk for diabetes patients in a care coordination, home-telehealth programme. Journal of Telemedicine and Telecare, 15: 98–101.

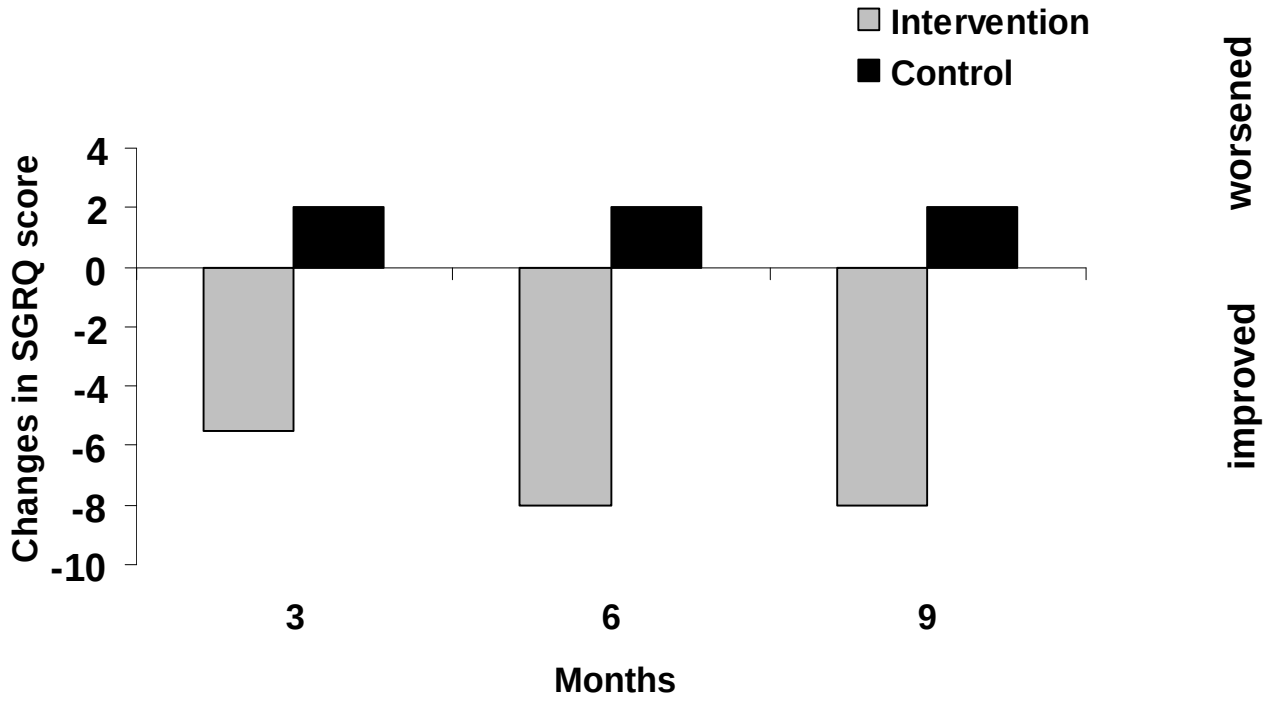
COPD | Quality of life with COPD

Koff et al. 2009

Clinical

Cost

Acceptance



SGRQ: St. George´s Respiratory Questionnaire;
score: 0(=good) to 100(=bad)

Source: Koff et al., Poster präsentiert auf International Conference of the American Thoracic Society, 18/05/2009, San Diego (CA); Printpublikation unter Begutachtung; vgl. auch Pilotstudie publiziert in Koff et al., 2009, European Respiratory Journal, 33, 1031-38.

Cost | long-term study in US

Darkins et al. Telemedicine and e-Health, Dec 2008

Clinical

Cost

Acceptance

Condition	**# of Patients** (rounded)	**% Decrease Utilisation**
Diabetes	9,000	20%
Hypertension	7,500	30%
CHF	4,100	26%
COPD	2,000	21%
PTSD*	130	45%
Depression	340	56%
Other Mental Health	650	41%
Single Condition	**11,000**	**25%**
Multiple Conditions	**6,100**	**26%**

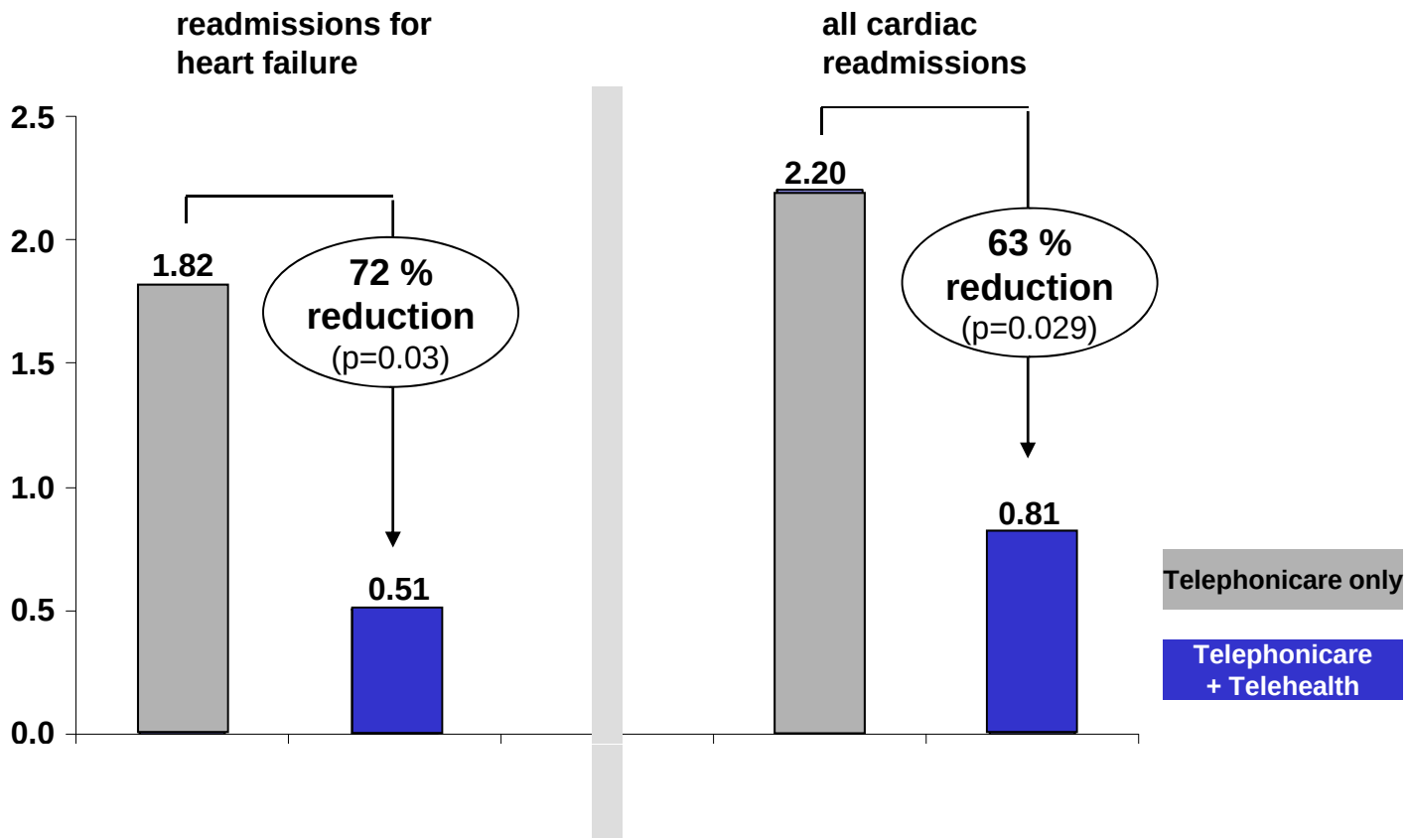
Source: Darkins et al. 2008, CCHT: The Systematic Implementation of Health Informatics, Home Telehealth, and Disease Management to Support the Care of Veterans with Chronic Conditions, Telemedicine & e-Health, 14(10), 1118-1126

Cost | Reduction in cardiac hospitalizations

Clinical

Cost

Acceptance



Source: Weintraub AJ, Kimmelstiel C, Levine D, et al. A multicenter randomized controlled comparison of telephonic disease management vs. automated home monitoring in patients recently hospitalized with heart failure: SPAN-CHF II trial. Program and abstracts from the 9th Annual Scientific Meeting of the Heart Failure Society of America, September 18-21, 2005, Boca Raton, Florida.

Acceptance | long-term study

Clinical

Cost

Acceptance

Eighty-five percent (85%) are in daily compliance with device.

86% say they better understand their condition and treatment and are better able to manage their chronic condition(s).

Over 95% are (very) satisfied with Telehealth, and most of them would recommend it to others.

Source: Boyne et al., 2008, Telemonitoring in patients with heart failure: A feasibility study (TEHAF). European Journal of Cardiovascular Nursing, 7, S20-S21.

Evidence Summary | Expected Benefits

Telehealth can fill a crucial gap in the continuum of care.

Telehealth solutions support a multi-dimensional model of care for individuals with chronic conditions, particularly those with multiple, complex needs who are often either elderly and frail and/or disabled.

The benefits are immediate, tangible and significant to clinical staff, patients and society.

- Reduced hospitalizations
- Increased quality of life of patients
- Reduced mortality
- Early detection of exacerbations, impairment of health
- Individualized interventions
- Patient empowerment, education, behavioural reinforcment and motivation
- Efficient, exception based interventions

But **barriers continue** to **hinder** the **further deployment** of **Telehealth**

While the potential benefits of Telehealth are enormous, a number of barriers continue to hinder the introduction of Telehealth, or prevent them from achieving optimal benefits. Among them are:

- No **reimbursement** or sustainable funding
- Missing **incentives**, accordingly business models for care providers
- Missing IT standards and issues on **interoperability**
- Lack of **awareness** and confidence in maturity and positive results
- Many smaller pilots addressed individual issues, but not overall solution
- Two parallel infrastructures for Telehealth (new) and Telecare (existing)
- Unclear **legal** responsibilities, different regulations within EU Member States

COCIR's Call for Action to promote the further deployment of Telehealth

1. European Commission and Member States to establish an appropriate legal framework with effective transposition at country level

2. Strengthen cooperation between healthcare stakeholders to "best practice health strategies" supporting telehealth adoption in routine clinical practice

3. Finance more and sustainable large scale projects with health economic evaluation to assess the impact of telehealth solutions

4. Integrate telehealth into existing care delivery structures and ensure interoperability of telehealth solutions

5. Establish sustainable economic model for telehealth by starting dialogue between healthcare stakeholders

How COCIR and EHRA/ESC can cooperate

Think Globally

Act Locally