

# Patient Oriented Implementation

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*Senior research fellow*

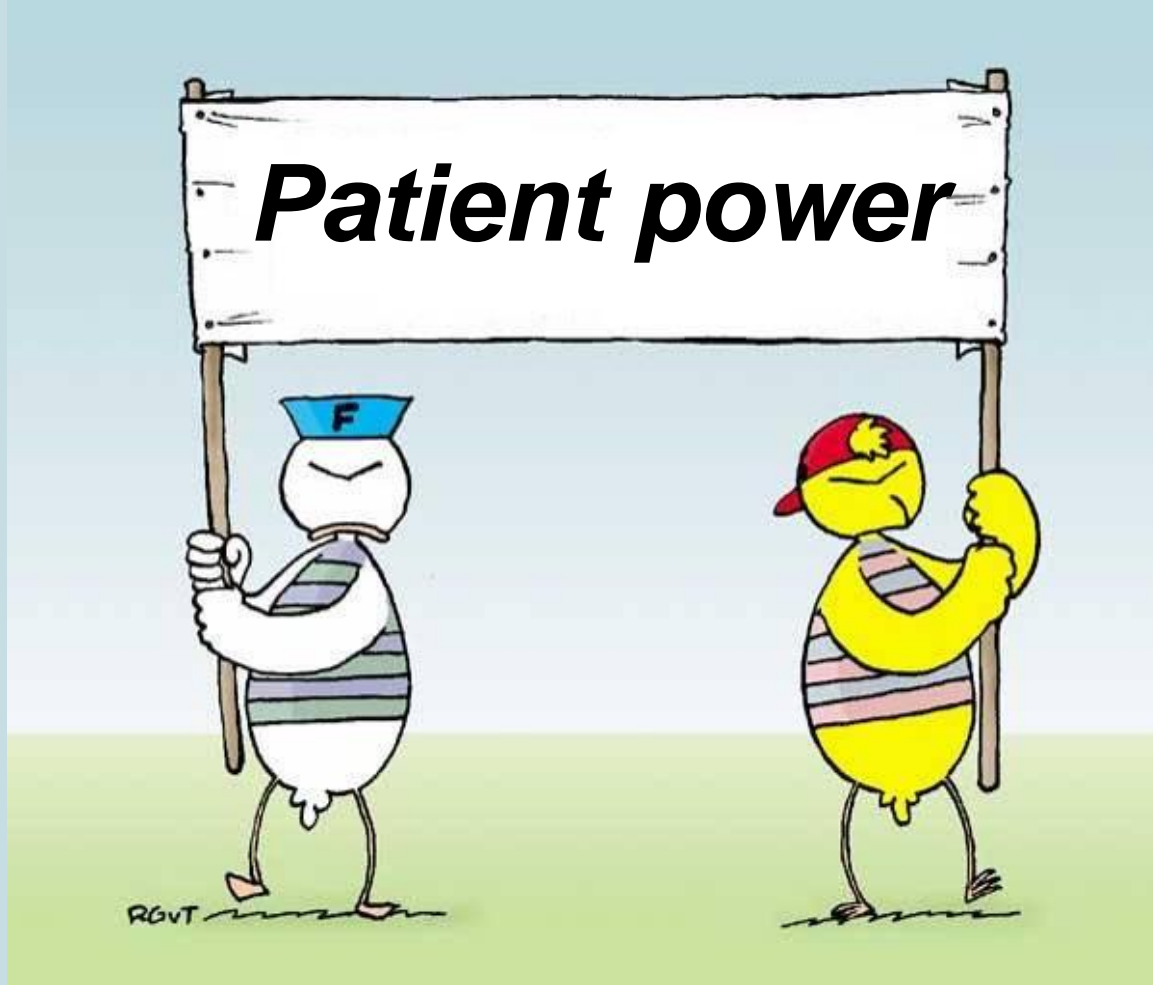
*Patient empowerment theme leader*



**ZonMw**



Scientific Institute for  
Quality of Healthcare

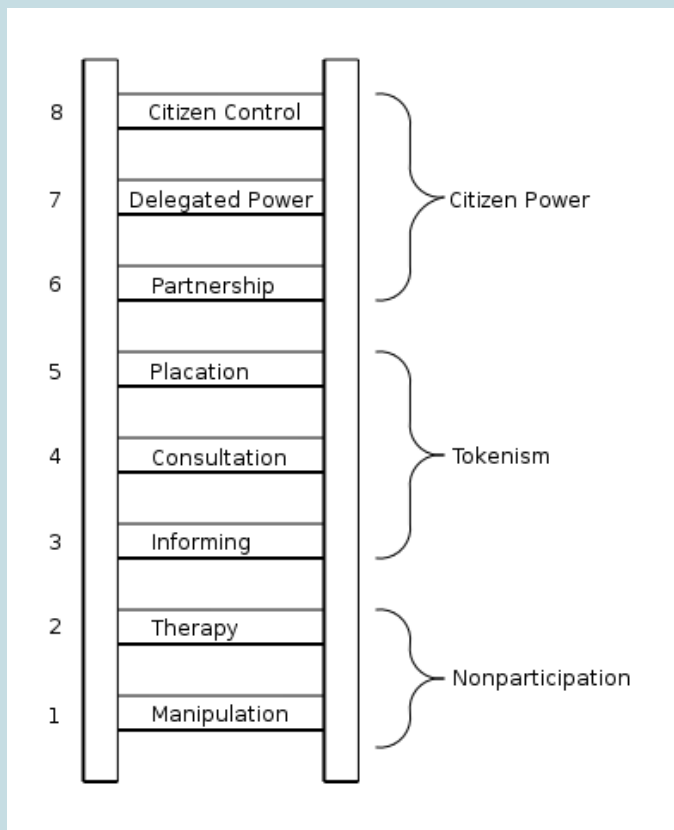


# MCR Framework for complex interventions

In summary:

1. From theory to **intervention**
2. From intervention to **implementation**

# Levels of patient participation: Arnstein's Ladder



Self-management  
Individual treatment decisions

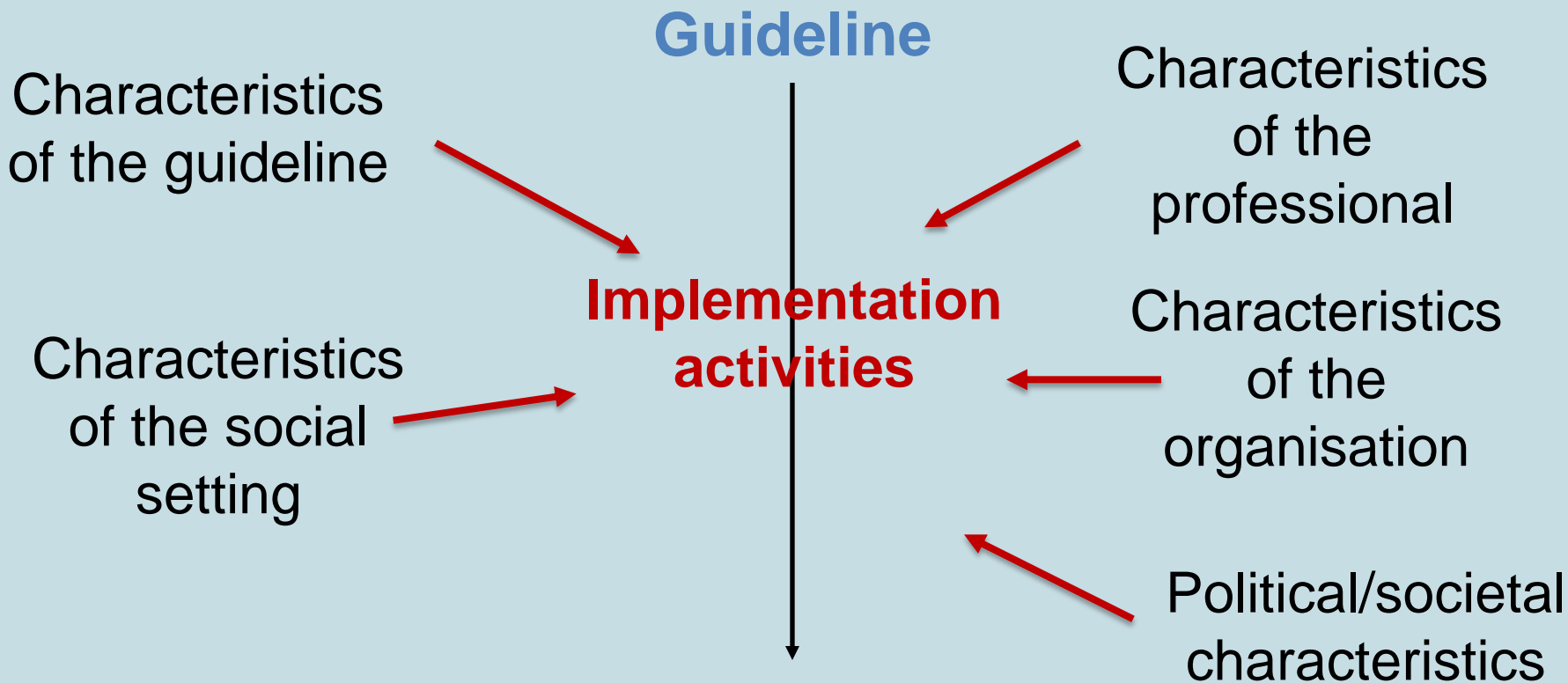
Patient representatives as board  
member of health care organization  
Participation in guideline & indicator  
development team  
Setting research priorities

*Arnstein, JAIP, 1969.*

## Rational for patient involvement in quality improvement

- Patients' rights as defined by law
- Ethical imperative, i.e. “nothing about me, without me”
- Guidelines, i.e. preference sensitive decisions
- Patient-related barriers for implementation

# Guideline implementation



# Why don't physicians follow clinical practice guidelines

(Cabana et al, JAMA, 1999)

Systematic review: 76 studies investigating 293 potential barriers to guideline adherence

Main barriers:

- Lack of awareness: 46
- External barriers: 34 (guideline / **patient related**, environmental)
- Lack of agreement: 33
- Lack of familiarity: 31
- Lack of self-efficacy: 19

# Guideline implementation

## Intervention

Group 1 = Provider oriented: feedback on baseline data, education and reminders

Group 2 = Patient oriented: information based on guideline + passport (i.e. PHR on paper)

## Effectiveness

HbA1C and life expectancy improved equally in both groups.

*(Dijkstra et al, Diabetic Med, 2006)*

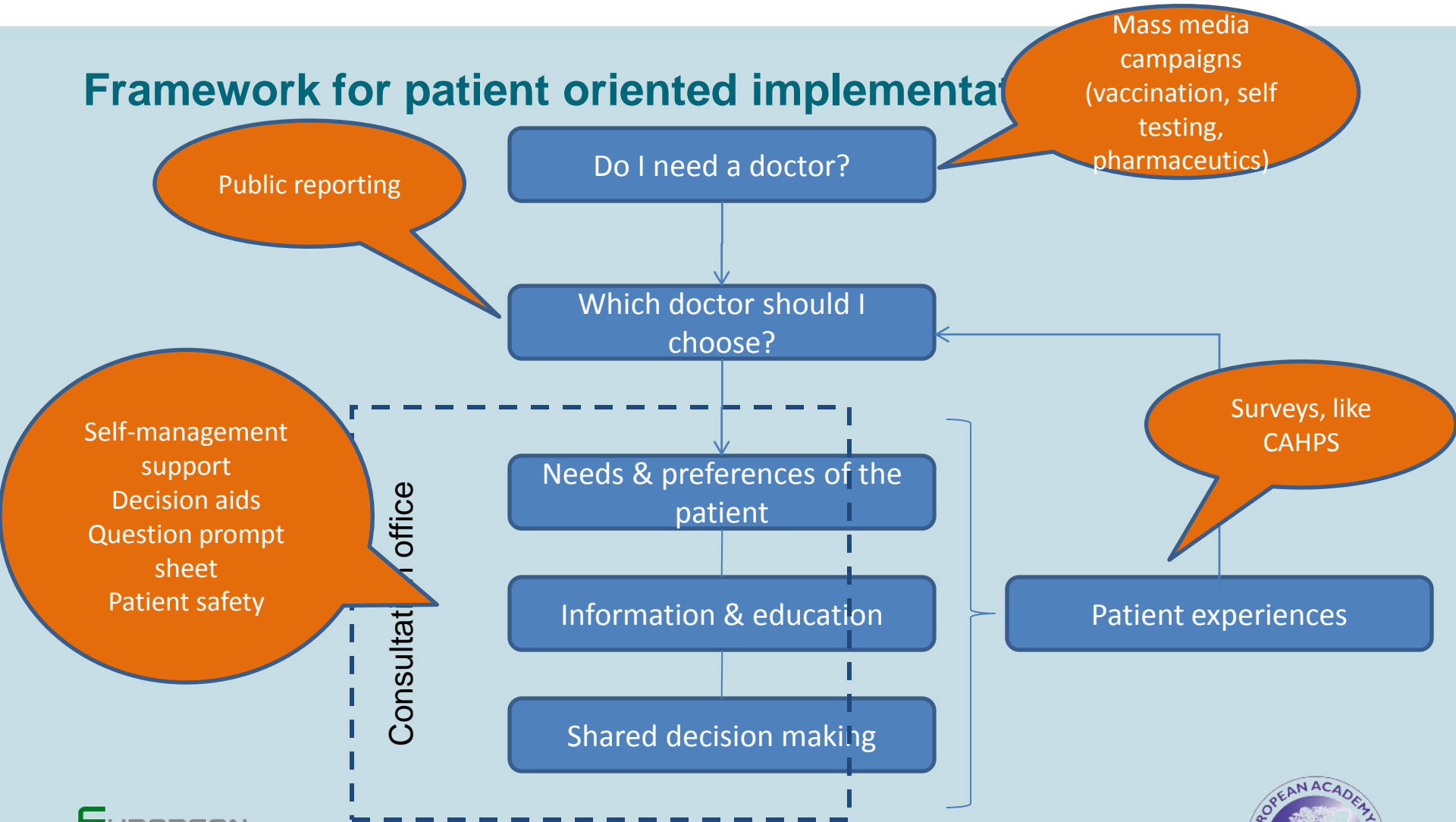
# Patient participation & quality of care: what to expect?



*Institute of Medicine. Crossing the quality chasm. A new health system for the 21st century. Washington DC, USA: 2001.*

# Your experiences with patient oriented implementation

# Framework for patient oriented implementation



# Mass media to reduce pre-hospital delays.

## Intervention (RCT)

Educational letter indicating stroke symptoms and emphasizing the importance of calling the emergency medical services. Distributed to households (75.000 persons) in Berlin zip-code areas.

## Effectiveness

Time to hospital reduced by 27%.

*(Muller-Nordhorn et al, Arch Intern Med, 2009)*

# Provider choice: the framework

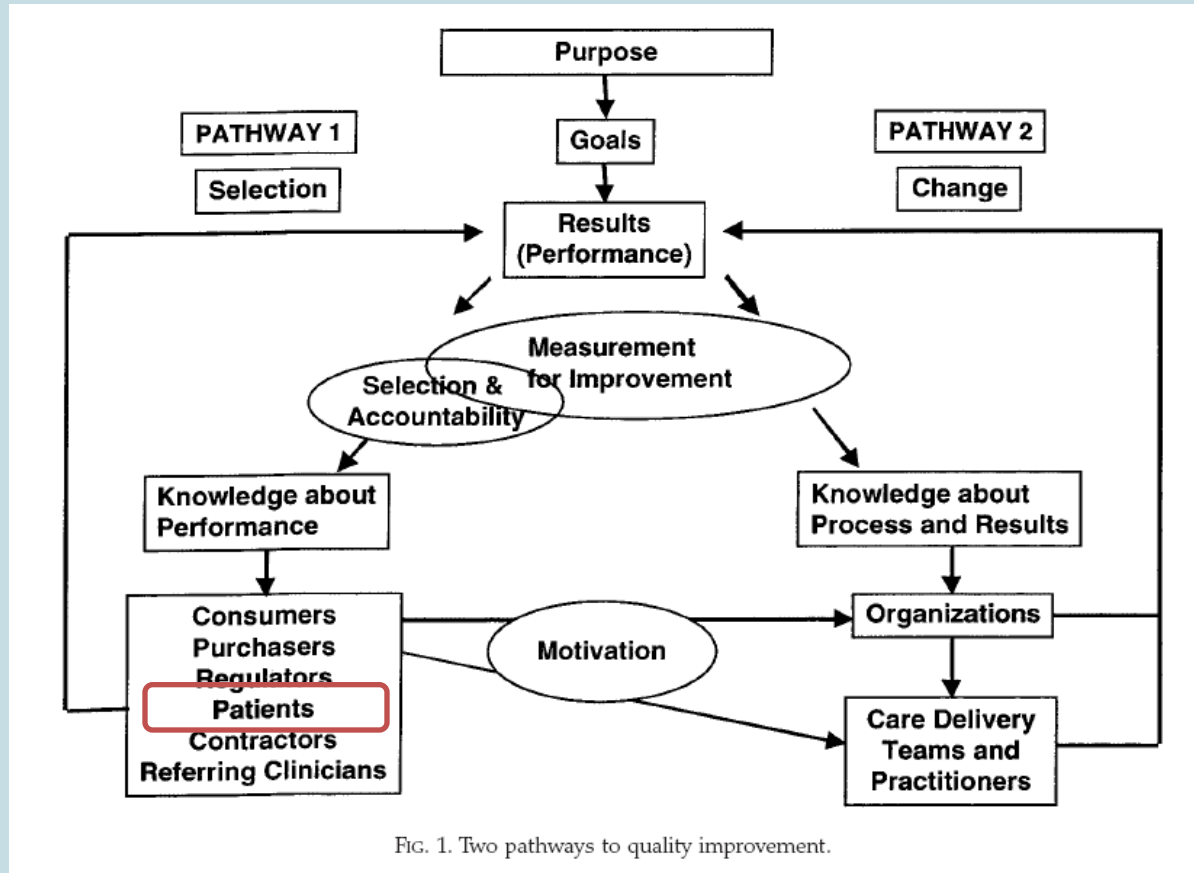


FIG. 1. Two pathways to quality improvement.

*Berwick et al,  
Med Care, 2003*

# Provider choice

## Interventions

Public reporting of performance indicators in newspapers, the internet or sent by personal mail. Examples of indicators are: mortality rates, patient experiences.

## Effectiveness

-Patients: none

-Providers: some, for those who are low performers

*(Marshall et al, JAMA, 2000; Ketelaar et al Cochrane review, in press)*

## Provider choice: example performance info

Measures	Hospital X	Hospital Y	Hospital Z
Your out-of-pocket costs	\$	\$\$\$	\$\$
No. of registered nurses per 100 patients	18	38	29
Has computer system to prevent medical errors	No	Yes	Limited
% of time guidelines for heart attack care are followed	82%	92%	87%
% of time guidelines for pneumonia care are followed	60%	89%	78%

*(Peters et al Medical Care Research Review, 2007)*

## Patient safety

### Willingness to participate

Situation	Willingness (1-7 pnt scale)
Would you ask a nurse: Can you check that this is the correct medication for me?	4.6
Would you ask a doctor: Have you washed your hands?	2.7
If you experienced an error in you care would you report this to a national reporting system?	4.4

*(Davis et al, BMJ Qual Saf, 2011)*

# Impact of patient participation in safety

## Four reporting systems:

*(Christiaans-Dingelhoff et al, BMC HSR, 2011)*

- 1) informal
- 2) formal complaints by patients/relatives
- 3) medico-legal claims by patients/relatives
- 4) incident reports by healthcare professionals

3.6% of adverse events found in patient's medical records were found in at least one of the four systems.

Healthcare professionals reported relatively more preventable adverse events than patients.

# Patient participation & quality of care: what to expect?



## Patient centeredness

Being respectful of (and responsive to) individual patient preferences, needs and values; and ensuring that patient values guide all clinical decisions. (IOM, 2001)

*Institute of Medicine. Crossing the quality chasm. A new health system for the 21st century. Washington DC, USA: 2001.*

# Transforming your healthcare organization into a patient centered environment: step 1 = listen!



## Step 2: collect patient experiences

Surveys, like CAHPS (US),  
Picker surveys (UK) and  
CQI (Dutch).

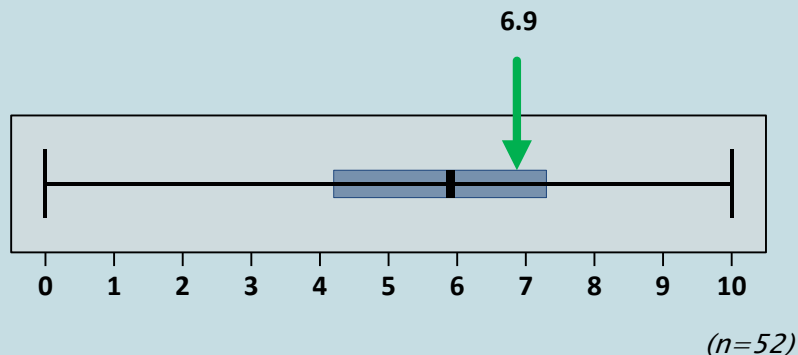


## Step 3: provide feedback to professionals

### 1 | A Accessibility

**Comprises items:**

- Telephonic access of hospital
- Accessibility of the team for questions (by phone or e-mail)



## Step 4: select quality improvement priorities

Barriers and facilitators for quality improvement based on benchmarked patients' experiences

Hospital

- Size of hospital
- Relation to other type of clinics
- Management

Individual  
professional

- Own values
- Own perception of high-quality care

Feedback

- Positive versus negative feedback
- Items recognized or not recognized
- Organizational versus relational care aspects
- Reliability of data

*Aarts et al, work in progress*

# Patient involvement in information development

## HELP US!



In our community, you find wiki's with information about your fertility treatments. This information is not complete since your knowledge & experiences are still lacking.

Please help us. It is a very simple:

1. Go to our [mijnzorgnet.nl](http://mijnzorgnet.nl)
2. Go to the wiki
3. Add your information



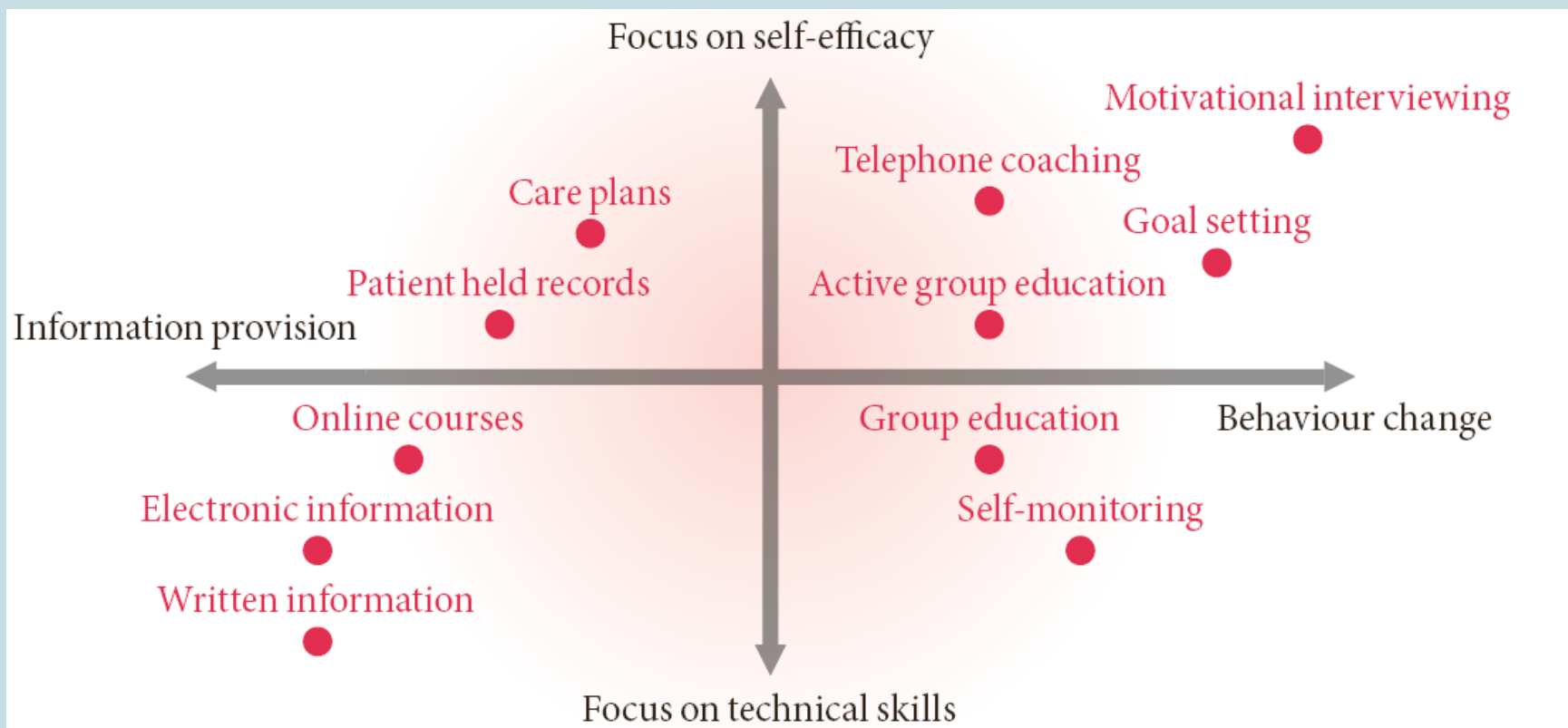
## Intervention

- Secured 'wiki' environment
- Collaborative writing process with patients and care providers
- Unique perspective, based on experiences

## Effectiveness

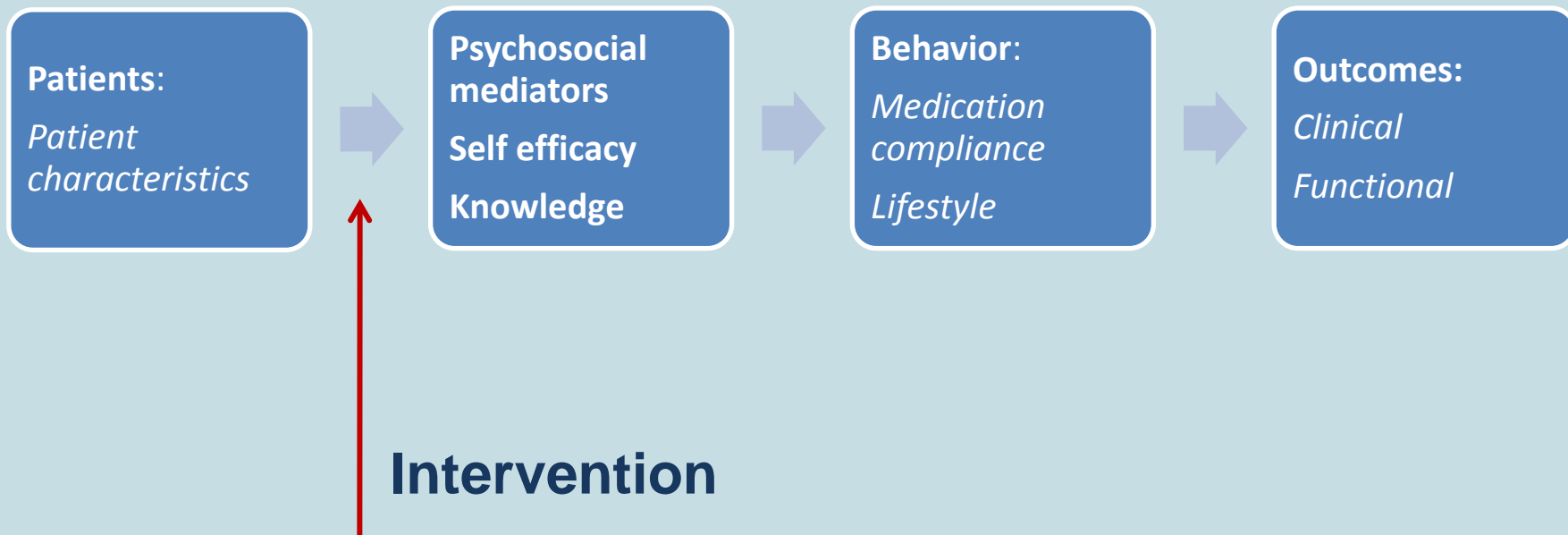
**“Who am I to decide what is relevant?”**

# Self-management approaches



## Theoretical model for patient oriented interventions in SM

(Lemmens et al, PEC, 2008)



# E-health for self-management support in DM

## Interventions

Monitoring (in PHR), treatment instructions, SM-training, general information, electronic communication between health care providers and patient.

## Effectiveness

- Moderate positive effects on health outcome, e.g. HbA1C.
- Cost-effectiveness rarely included.

*(Eland-de Kok et al, JCN, 2011)*

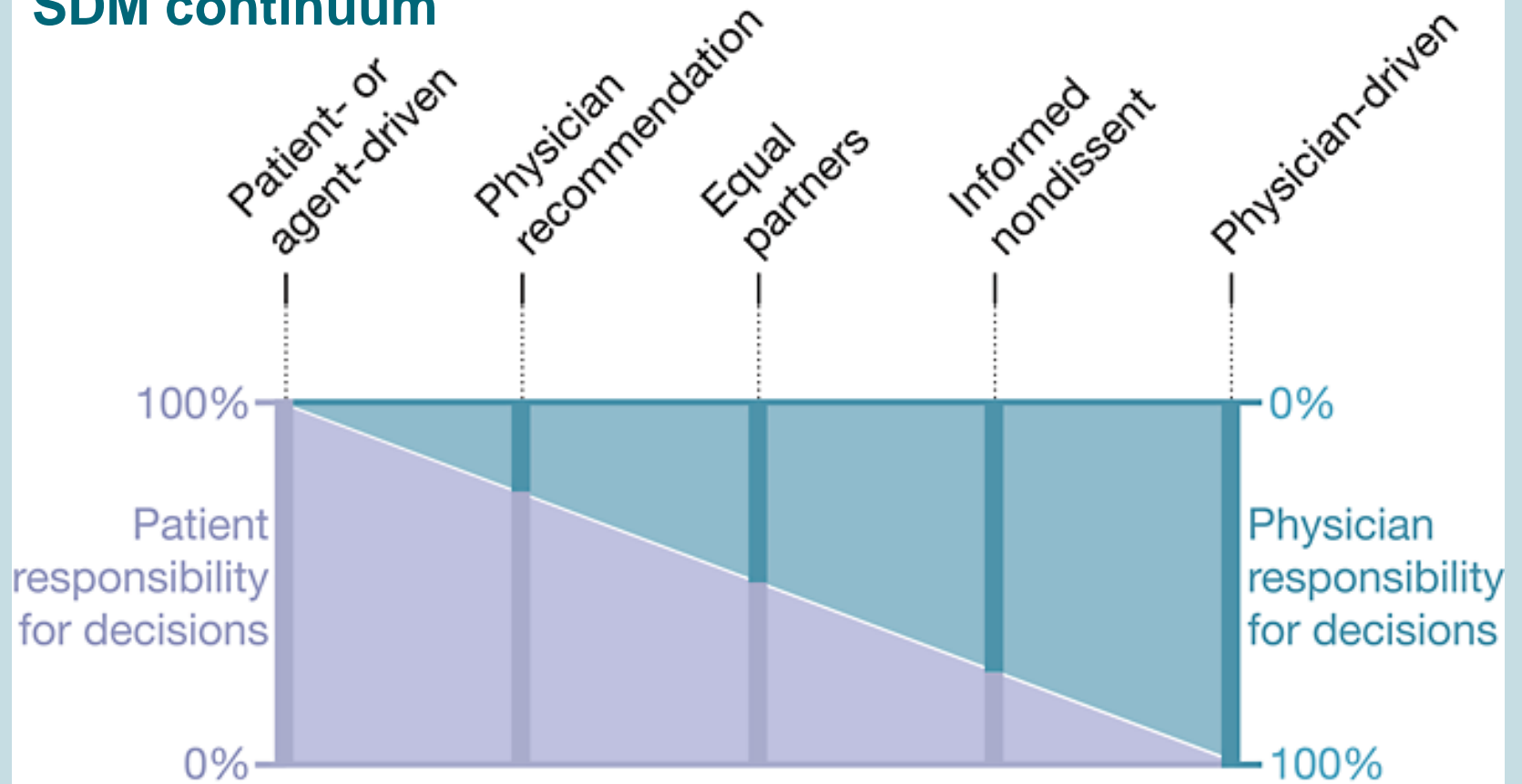


## Shared decision making

“Although there is much to learn about the art and science of shared decision making, progressive measures to empower patients with knowledge about treatment options should be welcomed. Only then will medicine begin to move away from a clinician centric model to one in which patients can truly participate in decision making.”

*Editorial, Lancet, March 2011*

## SDM continuum

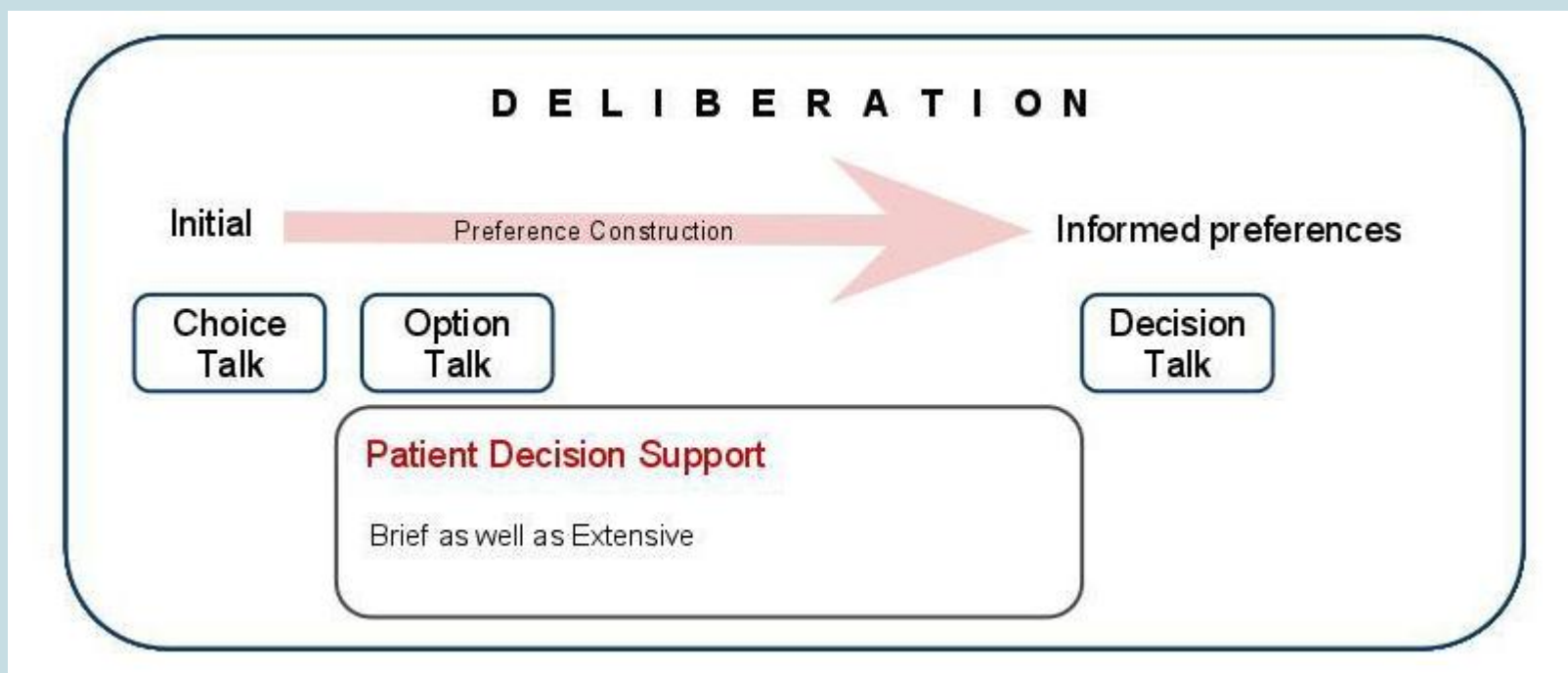


Kon, JAMA, 2010

## Features of the SMD process

1. Equipoise (recognize decision to be made)
2. Knowledge transfer and exchange
3. Expression of values/preferences
4. Deliberation
5. The decision
6. Implementation of the decision

# The SDM-process in a deliberation model

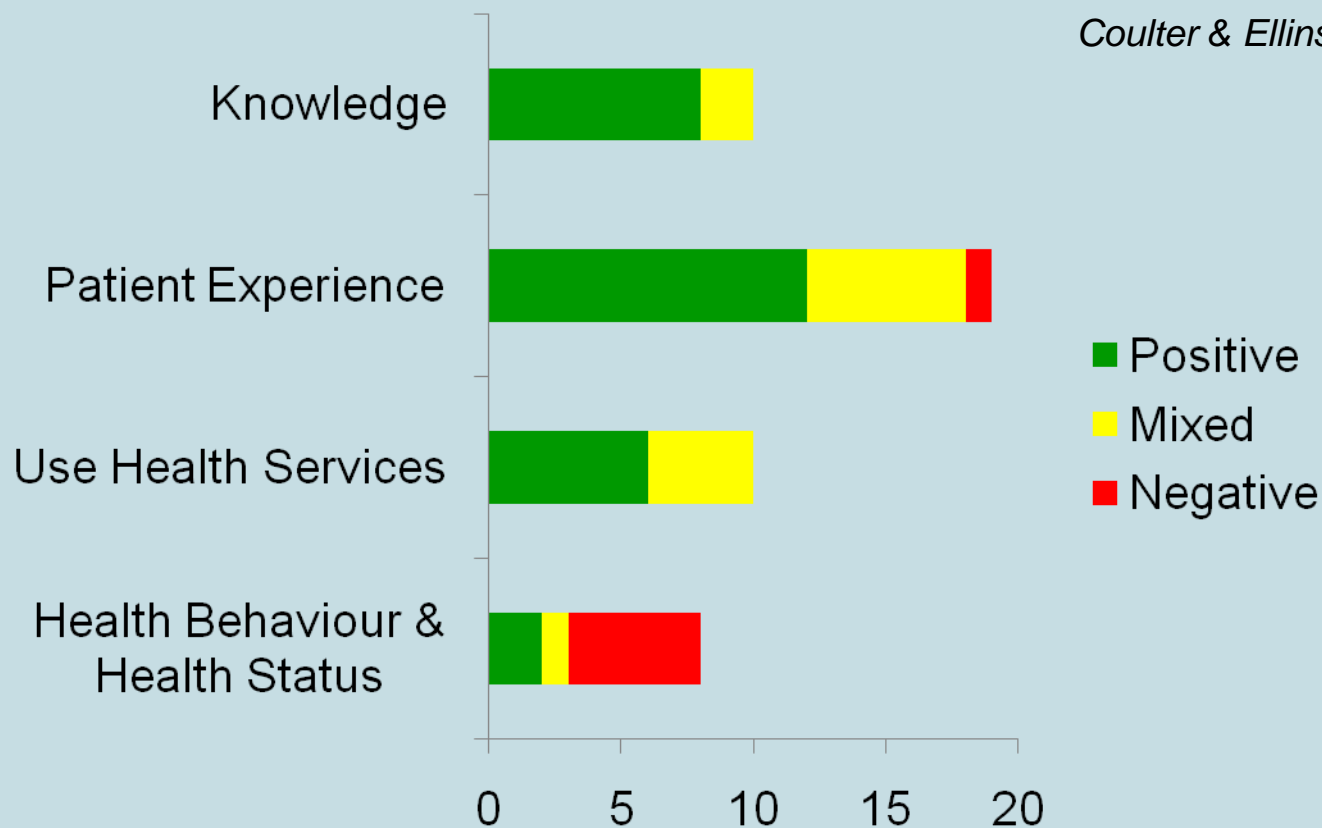


## SDM: Interventions

Patient Decision Aids	Professional Training	Patient Training
<ul style="list-style-type: none"> <li>• before, during, after consult</li> <li>• information regarding options</li> <li>• present probabilities</li> <li>• clarify values</li> <li>• guide: deliberation &amp; communication</li> </ul>	<ul style="list-style-type: none"> <li>• Communication skills</li> <li>• SDM skills</li> </ul>	<ul style="list-style-type: none"> <li>• Question prompts</li> <li>• Coaching to prepare for consultation, deliberation, implementation</li> </ul>

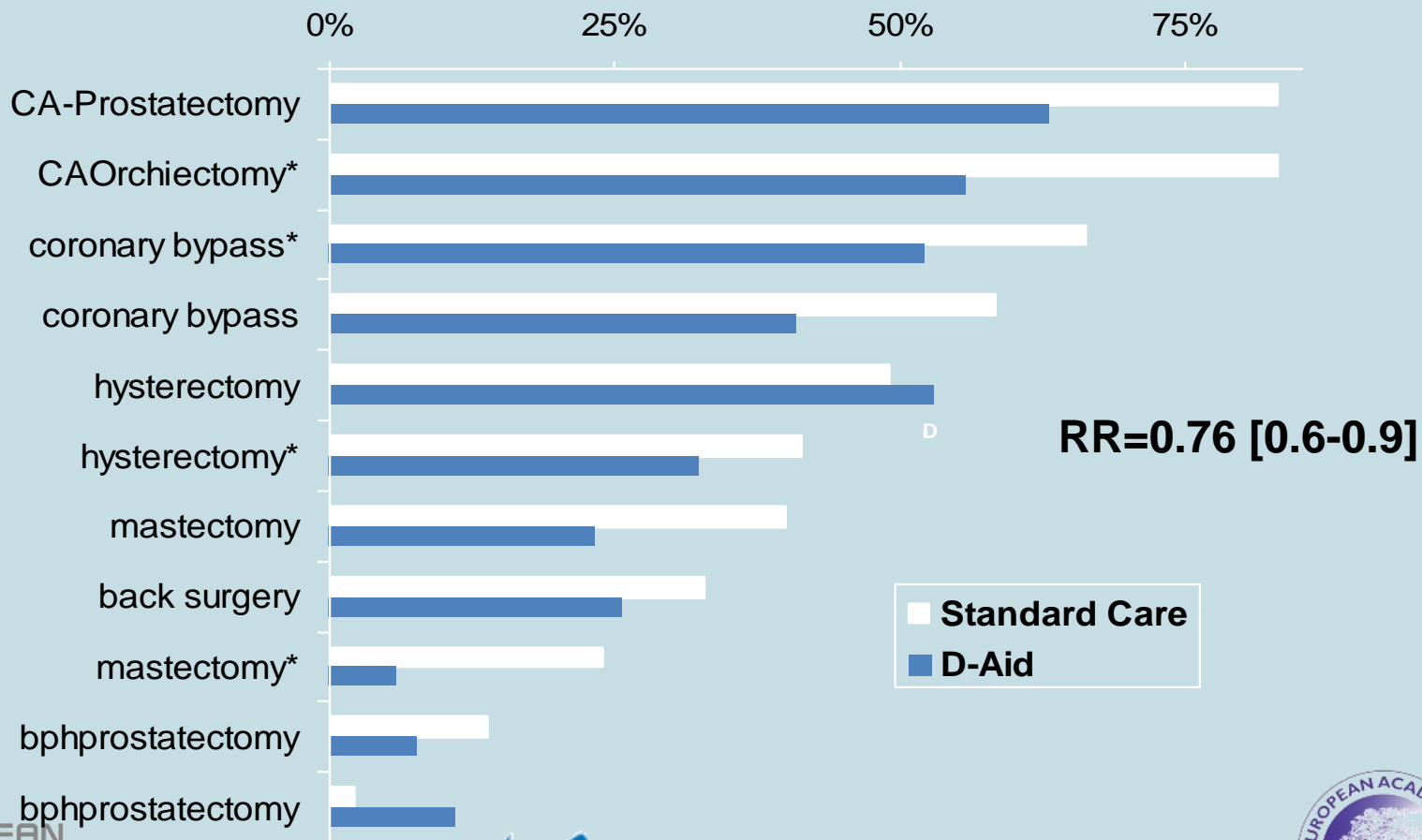
*Coulter & Ellins, BMJ 2007*

# SDM: Effectiveness (review of 22 reviews)



# Resource use: surgery

O'Connor et al, Cochrane Library, 2009



## Decision aid for 1 or 2 embryos

IVF:

- Single embryo transfer:  
prevention of twins
- Double embryo transfer:  
higher pregnancy rate



# Nijmegen decision aid

Information about:  
Chances

- Risks of twins
- How to make the choice

*van Peperstraten et al, Patient Educ Couns, 2009*



# Patients make better and cheaper choice

BMJ

RESEARCH

## Patient empowerment for prevention of twins after in vitro fertilisation: randomised controlled trial

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### ABSTRACT

**Objective** To evaluate the effects of a multifaceted empowerment strategy on the actual use of single embryo transfer after in vitro fertilisation.

**Design** Randomised controlled trial.

**Setting** Five in vitro fertilisation clinics in the Netherlands.

**Participants** 308 couples (women aged <40) on the waiting list for a first in vitro fertilisation cycle.

**Interventions** The multifaceted strategy aimed to empower couples in deciding how many embryos should be transferred. The strategy consisted of a decision aid, support of a nurse specialising in in vitro fertilisation, and the offer of reimbursement by way of an extra treatment cycle. The control group received standard care for in vitro fertilisation.

### INTRODUCTION

Empowering patients is essential for good medical decision making and has been mentioned as an essential characteristic of good quality care.<sup>1-3</sup> Patient empowerment implies a process of informing patients and providing them with the necessary tools and autonomy to adopt an active role in decision making. It is supposed to ensure that patients' experiences and opinions are integrated into clinical decisions, as well as to encourage doctors and researchers to focus on patient centred outcomes.<sup>4</sup> However, the effect of patient empowerment, especially within complex decision making processes, is still being debated. Concerns were raised that patients might decline responsibility for decision making or that they would choose suboptimal or most expensive options.<sup>5,6</sup>



ZonMw

# Perceived barriers and facilitators for adoption of SDM by professionals (review 38 studies)

*(Legare et al, Patient Edu Counseling, 2008)*

## Barriers

- 22x time constraints
- 18x not applicable to my patients
- 16x not applicable to my clinical context

## Facilitators

- 23x provider motivation
- 16x positive impact on clinical process
- 16x positive impact on patient outcomes

## SDM: interesting observations (1)

1. Physicians choose a lower radiation dose in 20% and patients in 57%. Agreement of physician estimates and patients preferences was poor. (*Stalmeier et al, JCO 2007*)
2. In oesophagogastric cancer physicians strongly preferred a better mortality ( $\beta=-.80$ ) over morbidity ( $\beta=-.35$ ) which was the opposite of patients' preferences for mortality ( $\beta=-.57$ ) and morbidity ( $\beta=-.70$ ). (*Thrumurthy et al, Br J Surg 2011*)

## SDM: interesting observations (2)

3. Physicians recommend different, less aggressive treatments for patients than they would choose themselves ( $p < .03 / < .001$ ). (*Ubel et al, Arch Int Med 2011*)
4. Patients with schizophrenia (48%) and MS (27%) followed the advice of their physician contrary to their own preferences; and were less satisfied with the decision ( $p < .01$ ). (*Mendel et al, Health Expect 2011*)

## In conclusion

1. Patients' and physicians' preferences differ
2. Preferences are difficult to predict
3. Physicians' preferences still influence patients' decisions

# Exercise: implementation of SDM in the clinical encounter

## Setting

Patient with herniated disk (HNP), pain for >6 weeks, asks GP for referral to neurologist.

## Evidence

Surgery versus prolonged conservative treatment (PCT):  
Surgery gives more rapid relief than PCT, outcomes and societal costs are similar by one year.

## Questions

1. Define patient related barriers for SDM
2. Define implementation strategy for SDM
3. Select primary outcome measure