ANALYSIS
OF BARRIERS AND FACILITATORS
IN IMPLEMENTATION

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Objectives

Be aware of the importance of barriers and facilitators in implementation processes

Be familiar with common facilitators and barriers at different levels (individual, team, organisation)

Be familiar to identify common and specific barriers and facilitators for change
What is Implementation?

<table>
<thead>
<tr>
<th>Diffusion</th>
<th>Spreading information and natural adoption by the target group of guidelines and working methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissemination</td>
<td>Communication of information to care providers to increase their knowledge and skills; more active than diffusion; directed at a specific target group</td>
</tr>
<tr>
<td>Adoption</td>
<td>Positive attitude and decision to change personal routine</td>
</tr>
<tr>
<td>Implementation</td>
<td>Introduction of an innovation in the daily routine; demands effective communication and removal of hindrances</td>
</tr>
</tbody>
</table>

(Davis & Tailor-Vaisey, Can Med Assoc J 1997)
Implementation

“a planned process and systematic introduction of innovations and/or changes of proven value; the aim being that these are given a structural place in professional practice, in the functioning of organisations or in the health structure”

(Zorg Onderzoek Nederland 1997 in: Grol et al, 2005)
The quality problem

- Many patients (30-45%) do not receive recommended (evidence based) care in line with guidelines or best practices

- 20-25% of tests ordered or medications prescribed are not evidence based, unnecessary and potentially harmful

- Many patients are harmed by health care because of errors and adverse events, many of which are preventable

- Large, unexplained differences in quality between sites and providers

- Improvement, even after well developed programs is slow
Barriers in implementing guidelines

Professionals:
• are not aware of guideline (55%)
• don’t know what is in the guideline (57%)
• don’t agree with guideline (6-68%)
• are lacking self efficacy (13%)
• have no positive outcome expectations (26%)
• are lacking motivation to change (42%)
• are influenced by external factors like money, time,.. (5-17%)

(Cabana 1999 in: Grol & Wensing 2006)
Implementation of change: a model

Planning
- clear goals
- coordination/team
- involving target group
- budget
- time schedule

Research findings or guidelines

Problems identified; good experiences or best practices

Development of concrete proposal/targets for improvement or change

Adapting or improving proposal for change

Analysis of performance, target group and setting

Supplementary analyses

Development/selection of strategies and measures to change practice

New strategies

Development, testing and execution of implementation plan

Adapting plan

(Continuous) evaluation and (where necessary) adapting plan

Goals are not achieved

Don’t be afraid of change.
Problem analysis target group & Setting

- Planning
  - clear goals
  - coordination/team
  - involving target group
  - budget
  - time schedule

- Development of concrete proposal/targets for improvement or change

- Analysis of performance, target group and setting

- Development/selection of strategies and measures to change practice

- Development, testing and execution of implementation plan

- (Continuous) evaluation and (where necessary) adapting plan

- Goals are not achieved

- Adapting or improving proposal for change

- Supplementary analyses

- New strategies

- Adapting plan
Analysis of determinants

Who is involved?
Which interests at stake?
What is current practice like?
Which improvements are needed?
Which facilitating and hindering factors?
Relevant subgroups?
Existing progress or change?

Investigate these factors!
Barriers and facilitators can relate to

Innovation

Individual

Social context

Organisational
### Barriers and facilitators can relate to

<table>
<thead>
<tr>
<th>Category</th>
<th>Barriers and Facilitators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation</td>
<td>Attractiveness, accessibility, feasibility.</td>
</tr>
<tr>
<td>Individual</td>
<td>Knowledge, skills, attitude, motivation for change and personal characteristics</td>
</tr>
<tr>
<td>Social context</td>
<td>Care providers: culture, leadership, collaboration</td>
</tr>
<tr>
<td></td>
<td>Patients: awareness, knowledge, attitude, motivation</td>
</tr>
<tr>
<td>Organisational</td>
<td>Healthcare organisation: organisational structure, work flows, resources</td>
</tr>
<tr>
<td></td>
<td>Healthcare system: regulation, reimbursement, policies</td>
</tr>
</tbody>
</table>

A good diagnostic analysis is important
Gaining insight into the background and context

- Social map of the situation
- An analysis of the relevant people and organisation involved in the change process
  - Professionals: nurses, physicians, etc
  - Social context: patients, colleagues,
  - Organisational context: professional organisations of for example physicians
Example from health care: prevention of hospital infections (BMJ 2001)

- 9-10% of all patients in hospital get infection
- 15-30% are estimated to be preventable
- “appropriate hand hygiene single most effective preventive measure” (Pittet 2004)
# Barriers in the implementation of hand hygiene

<table>
<thead>
<tr>
<th>Individual</th>
<th>Cognitions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Attitude &amp; motivation</td>
</tr>
<tr>
<td></td>
<td>Routines</td>
</tr>
<tr>
<td>Social</td>
<td>Social influence and leadership</td>
</tr>
<tr>
<td>Hospital or health centre</td>
<td>Organisational</td>
</tr>
<tr>
<td></td>
<td>Resources</td>
</tr>
</tbody>
</table>

(Grol & Grimshaw, Lancet 2003)
## Barriers in the implementation of hand hygiene

<table>
<thead>
<tr>
<th>Category</th>
<th>Barrier</th>
<th>Individual</th>
<th>Social</th>
<th>Hospital or health centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>Cognitions</td>
<td>Seldom see complications</td>
<td>Lack of hard evidence</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>43%</td>
</tr>
<tr>
<td></td>
<td>Attitude &amp; motivation</td>
<td>Irritation of the hands</td>
<td>Costs too much time</td>
<td>81%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Routines</td>
<td>Forgetting rush hours</td>
<td>Falling back in old routines</td>
<td>65%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>49%</td>
</tr>
<tr>
<td>Social</td>
<td>Social influence and leadership</td>
<td>Nobody controls</td>
<td>Management not interested</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>45%</td>
</tr>
<tr>
<td>Organisational</td>
<td>Organisational</td>
<td>Not feasible in work</td>
<td>No hospital guideline</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>49%</td>
</tr>
<tr>
<td>Resources</td>
<td></td>
<td>No adequate facilities</td>
<td></td>
<td>42%</td>
</tr>
</tbody>
</table>

(Grol & Grimshaw, Lancet 2003)
Methods to identify barriers and facilitators

‘Open, explorative’ versus theory-based

• Open: advantage: identify issues that you had not thought of, possibility to clarify things

• Theory-based: factors you know/suspect might be important but not spontaneously mentioned can be measured → think “out of the box”

Ideally: use of both open and theory-based methods
## Theory based

<table>
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<tr>
<th>Theory</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual professionals</strong></td>
<td></td>
</tr>
<tr>
<td>Cognitive theories</td>
<td>• Decision process of professionals</td>
</tr>
<tr>
<td>Educational theories</td>
<td>• Needs &amp; Problems of target groups</td>
</tr>
<tr>
<td>Attitude theories</td>
<td>• Attitudes, perceived norms &amp; experienced control</td>
</tr>
<tr>
<td><strong>Social Interaction and context</strong></td>
<td></td>
</tr>
<tr>
<td>Social learning theory</td>
<td>• Demonstration, modeling, reinforcement</td>
</tr>
<tr>
<td>Social network theories</td>
<td>• Adaptation of change; local network, opinion leaders</td>
</tr>
<tr>
<td>Theories on team culture</td>
<td>• Team climate, Orientation on change in team</td>
</tr>
<tr>
<td><strong>Organisational and economic context</strong></td>
<td></td>
</tr>
<tr>
<td>Quality management</td>
<td>• Organisation-wide measures, process and systems</td>
</tr>
<tr>
<td>Organisational learning</td>
<td>• Conditions for continuous learning</td>
</tr>
<tr>
<td>Economic theories</td>
<td>• Attractive incentives, sanctions</td>
</tr>
</tbody>
</table>
Methods to collect data

Survey
- Questionnaires on guidelines
- Determinants,
- Case specific questionnaires

Interview
- Individual: face to face / telephone
- Group: brainstorming / focus
- Self registration of behavior
- Medical records
- (non) participating observation
- Routinely collected data

Observation
Methods to analyse data

General

• Qualitative analyses
• Delphi technique
• Multivariate data analysis

Quality management technique

• Pareto chart
• Fish-bone diagram
• Flow chart
'Implementing Lively Legs’
nurse led lifestyle counseling in patients with venous leg ulcers

• Nurse led program

• Systematically developed for dermatology outpatient clinics

• The effectiveness of this program was tested in a study
  (Heinen, 2011)
Implementing Lively Legs - Objectives

• To identify barriers and facilitators for implementing the Lively Legs program

• To develop an implementation plan
Treatment

• Ambulant Compression Therapy
• Activation of calf muscle pump

Stockings

Bandage
Patient & wound characteristics

- Mean age: 66 years (27-91)
- 60% women
- BMI: mean 30 (18-53), 76%>25
- 20% is working in a job
- Educational level: 23% elementary school

- Wound duration in months: 7.9, 4.0 (0.3-60.0)
- History of wounds;
  - 70% experienced > 1 time
Lively Legs program

- Nurse-led Lifestyle counseling
- 4 consultations in max. 6 months
- Motivational interviewing (Miller & Rollnick)
- Goal setting (Locke & Latham)
Implementing Lively Legs: barriers and facilitators

- Who is involved?
- Which interests at stake?
- What is current practice like?
- Which improvements are needed?
- Which facilitating and hindering factors?
- Relevant subgroups?
- Existing progress or change?
Collecting and analysing: barriers and facilitators

- Focus group interviews
- Questionnaire on barriers & facilitators (Peters 2003)
- Self efficacy in nurses
- Team climate inventory
- Interviews with managers, nurses and patients
- Interviews with key persons in insurance
- Description of the care process
Barriers for implementation

Patients
• Unclear where majority of patients could be reached

Nurses
• Uncertainty about available nursing time, consultation room
• Lack of knowledge/skills in behavior change / delivering the program

Dermatologists
• Some have other priorities, doubts about who benefits most

Organization
• No standardized care process, and/or regional treatment guidelines
• Competition between healthcare organizations (home care)
• Outpatient clinics; extra task without direct reimbursement
Facilitators for implementation

Patients
• Positive about counseling, effective on behavior change & wound

Nurses
• Positive about content and effect of the program
• Positive about tailoring program to patients needs

Dermatologist
• Positive about effect of the program, perceived need

Organization
• More cooperation healthcare organizations in the region
• More patients will be referred to outpatient clinic or homecare
• Extra task & finance for home health care organizations
• No major financial or organizational risks
Selecting Strategies
Benefit of the analysis

• In-depth picture of hindering and facilitating factors

• Develop specific education, information tailored to the target group
Summary

Awareness of the barriers and facilitators in implementation processes
- at different level: individual, team and organisational level
- identify the barriers and facilitators for change