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## **Building-up Trust by Co-Designing Digital Tools with Health Professionals: A New Paradigm**

- In order to engage more the stakeholders and create trust between them we need to change how we design and implement digital health systems: to speak the same language!
- **We need to change the culture and how we build digital systems by involving health professionals, managers, researchers, etc. We do not take implementation seriously!!!**
- Researchers and Experts are very often put aside the implementation process because the “IT project leaders”, or the “Software Vendors” “Know it all!”: This is a big mistake with huge costs!
- **Implementation Science, like Design Science Research Methodologies, is crucial to allow for the translation of evidence and of standards into the real-world implementations.**

# Building-up Trust by Co-Designing Digital Tools with Health Professionals: A New Paradigm

*We have to tackle a set of “complex” barriers...mainly related with organisational and management issues: Where is the value for the health professionals?*

## Hospital organisation, management, and structure for prevention of health-care-associated infection: a systematic review and expert consensus



Walter Zingg, Alison Holmes, Markus Dettenkofer, Tim Goetting, Federica Secci, Lauren Clack, Benedetta Allegranzi, Anna-Paola Pittet, for the systematic review and evidence-based guidance on organization of hospital infection control programmes

Despite control efforts, the burden of health-care-associated infections in Europe is high and 37 000 deaths each year. We did a systematic review to identify crucial elements for the organization of infection-prevention programmes in hospitals and key components for implementation of measures published from 1996 to 2012 were assessed and ten key components identified: organisation of infection prevention at hospital level; bed occupancy, staffing, workload, and employment of pool or agency nurses; availability of materials and equipment and optimum ergonomics; appropriate use of guidelines; education and auditing; surveillance and feedback; multimodal and multidisciplinary prevention programmes; behavioural change; engagement of champions; and positive organisational culture. These components are manageable and widely applicable ways to reduce health-care-associated infections and improve patient safety.

### Introduction

Health-care-associated infections (HAIs) affect millions of patients worldwide every year.<sup>1,2</sup> In the European Union (EU) alone, the estimated number of HAIs is 4544100 annually, leading directly to around 37000 deaths and 16 million extra days of hospital stay.<sup>3</sup> Several evidence-based practice guidelines have been published in the past decade<sup>4-12</sup> but, despite evidence suggesting that good practice strategies are sufficient, hospitals struggle to comply.<sup>13-17</sup> The systematic review and evidence-based guidance on organisation of hospital infection control programmes (SICHT) was funded by the European Centre

for Disease Prevention and Control (ECDC) and the WHO, including access to qualified health-care professionals and the roles of management committees; targets and methods of education and outbreak management, and the role of education and effectiveness of educating and training health workers (HCWs); effectiveness of education and behavioural change and quality of education in the context of multimodal prevention programmes; overview and effectiveness of local policies and resources for standard and transmission-based isolation precautions (figure 1).

## POLICY AND PRACTICE

### The contribution of eHealth and mHealth to improving the performance of the health workforce: a review

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***The co-design process is a good instrument to maintain everyone engaged, and to “find time” to align the working processes with the system.***

**Some observed implementation obstacles often blocking the process:**

- **the lack of real political support: “Is very important but we do not have resources to allocate”**
- **the game of economic and political interests: Showing the Value! Showing that Information Systems can help us address our problems!**
- **bad timing for a change in the organization (e.g. due to a board changes or a HRH shortages).**

**Important factors to consider:**

- **the multi-players' way of dealing with the processes of change & reorganization of their routines: digital systems have to be strongly supported by working processes**
- **find ways to improve translation capacity: terminology, standards, interfaces' usability, etc.**
- **Be ready to deal with the lack of available time from the information systems' department staff and technical issues (such as delays for bureaucratic authorizations).**