First results from the context analysis

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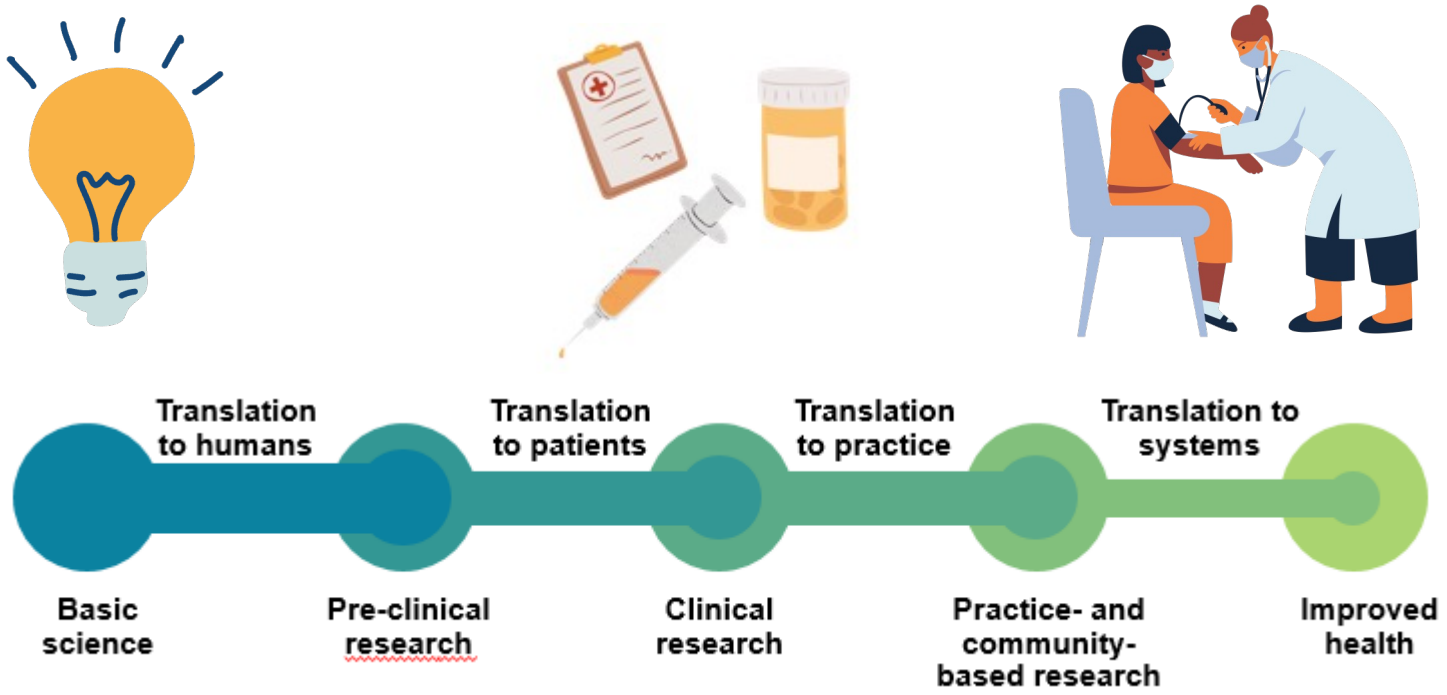
CHUV Centre hospitalier universitaire vaudois
Universität Zürich[UZH]
USZ Universitäts Spital Zürich

Topics

- Short Introduction: Why Implementation Science? What is it?
- Implementation Science within the CIBOSurg Project: Context Analysis
- First Results of the Context Analysis
- Conclusion

Why Implementation Science?

Phases of health research



Implementation Science

The **scientific study of methods**

- to promote the systematic integration of research findings and evidence-based practices into care delivery
- the de-integration of low value care.

(Slide courtesy of L. Clack, IfIS)

The know-do gap

Quantifying leaks in the pipeline:

50%
of clinical innovations into regular use

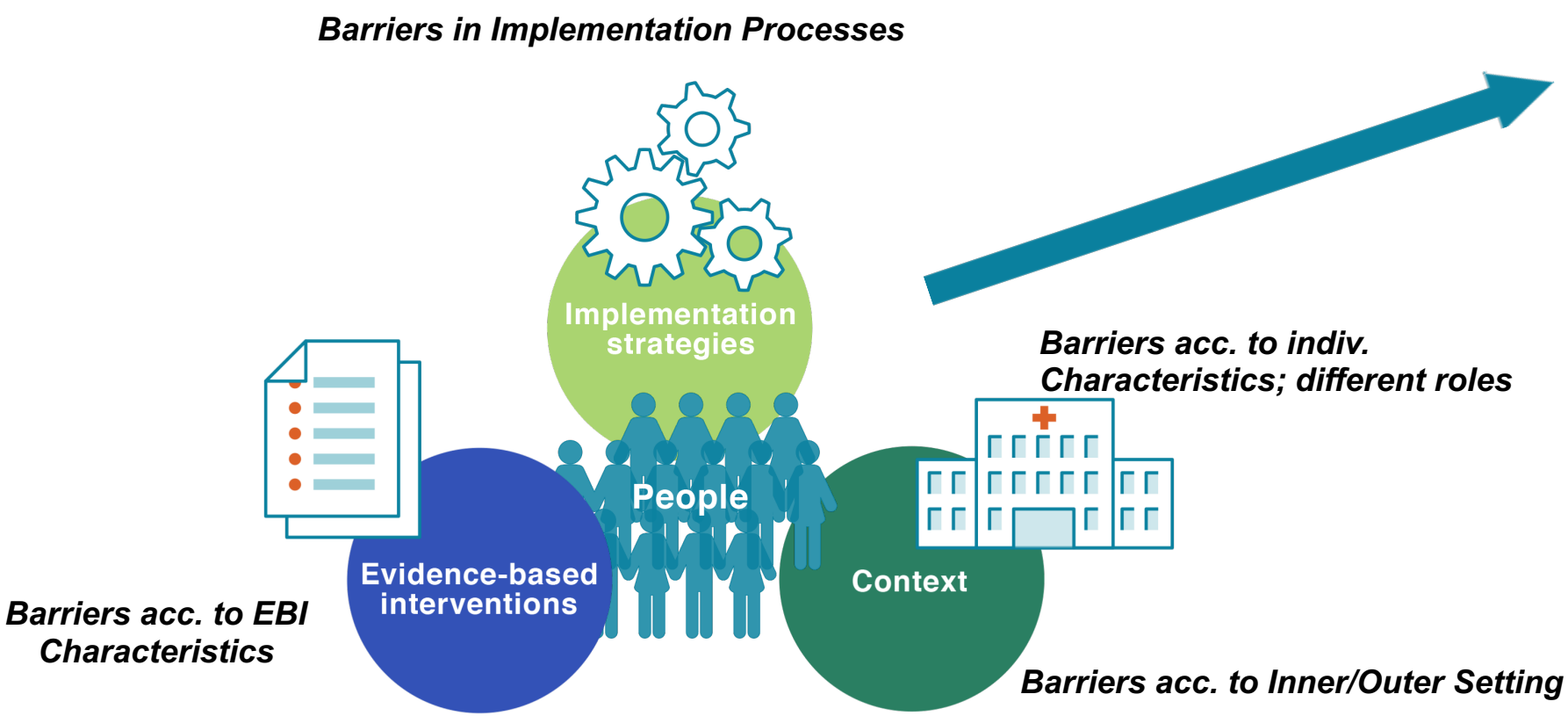
15-17
years to implementation

80% of $
do not make public health impact

Khan et al., (2021), *Cancer Causes & Control* https://doi.org/10.1007/s10552-020-01376-z
Morris et al., *J R Soc Med* (2011) https://pubmed.ncbi.nlm.nih.gov/22179294/
Mosteller, *Science* (1981) https://doi.org/10.1126/science.6781066

(Slide courtesy of R. Naef; IfIS)

Understanding leaks in the research pipeline



[Figure: Albers et al., 2022]

Context Analysis

Exploration;
(Initial) Considerations regarding host settings of WHAT, WHERE, WHO, HOW & WHY

CIBOSurg: Context analysis

Implementation object (innovation):

- Routine information exchange and documentation of iAEs
- in the sign-out phase
- at different hospital sites and in different disciplines

Research questions:

What factors influence at the different hospitals:

1. the implementation of **routine information exchange** on iAEs?
2. the implementation of **systematic documentation** of verified iAEs during the sign-out phase (based on the WHO SSC)?
3. **sustainable adherence** during the sign-out phase (based on the WHO SSC)

What **needs** can be derived from this for a sustainable implementation of ClassIntra® at micro, meso and macro level?

Methods

Qualitative Approach

- subjective perspectives, social interactions, underlying in-depth structures
- Everyday context
- Individual cases, inner representativeness

Application

- Interviews with experts
- Focus groups (end of Sept)

Analysis

- Rapid Analysis
- Thematic Analysis
- Inductive and deductive (CFIR Framework)

(CFIR: Damschroder et al. (2009; 2022; Rapid Analysis: Hamilton et al., 2019)

Topics of the initial interview and following interviews

Initial Interview (local project leaders)

- Use of WHO SSC (since when, applicability, experiences)
- Recording of iAEs (intraoperative adverse events), familiarity with the ClassIntra
- Planning the interviews

Interviews (surgery, anesthesia, surgical nursing, postoperative team, administration):

- Collection of general experiences / impressions
- Questions on barriers/support factors:
  - iAEs / ClassIntra
  - Sign-out
- Summarizing needs / requirements
- Additional questions: initial implementation of checklist, postoperative team, support/QM etc.

Sample

Hospital	Abdominal surgery	Urology	Orthopaedics / Traumatology	Vascular surgery	Number of Interviews
University Hospital Basel	x	x	x		13
University Hospital Zurich	x		x		10
University Hospital Lausanne	x	x		x	12
Cantonal Hospital Lucerne	x	x		x	11
Cantonal Hospital Graubünden	x		x	x	12
Regional Hospital Lugano	x		x	x	16
Inselspital (University Hospital of Bern)				x	8
Lindenhofspital Bern	x		x		7
Radboud UMC, Nijmegen (the Netherlands)	x		x	x	7
					96

Results: sign-out

	Status WHO SSC	*Status sign-out*
Hospital 1		
Hospital 2		
Hospital 3		
Hospital 4		
Hospital 5		
Hospital 6		
Hospital 7		
Hospital 8		
Hospital 9		

Results: sign-out

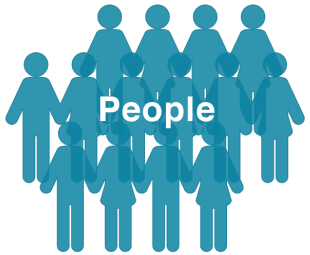
Design (Clarity: who/when, well integrated in the process flow – timing!, structured & standardized, presentation: paper/digital, …)

Complexity (short, simple…)

Work infrastructure (responsibilities, asynchronicity, number and duration of OPs, pressure, much parallels to do…)

Culture / Climate (interdisciplinary communication and collaboration - eye level, hierarchy, culture issue: openness,…)

Obligatory / Routine



Motivation (depends on persons /discipline; believers, leaders; experience of stress / time pressure, seems superfluous, …)

Results: iAE / Classintra®

	Status iAEs	*Familiarity ClassIntra®*	*(Anticipated) applicability ClassIntra®*	*Perceived benefit ClassIntra®*
Hospital 1				
Hospital 2				
Hospital 3				
Hospital 4				
Hospital 5				
Hospital 6				
Hospital 7				
Hospital 8				
Hospital 9				

Information Technology (electronic documentation, data storage/management, reporting & analysis)

Work infrastructure (organisation of tasks & responsibilities, general staffing levels)

Culture / Climate (shared values, beliefs, norms: learning centeredness, equality, ...)

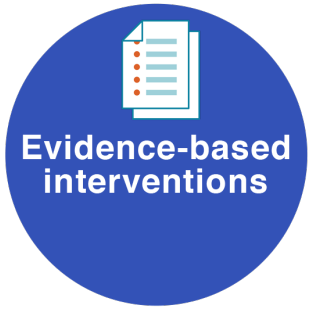
Communication (high/low quality formal and informal information sharing practices within and across Inner-Setting boundaries)

Design (comprehensible, well defined, access, …)

Complexity (number of people involved, scope, simple, …)

Motivation (benefit, commitment, intrinsic motivation, attitude, self-confidence, fear of legal consequences …)

Results: Needs

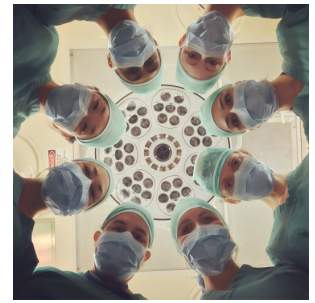


Well-designed innovation that is as little complex as possible:

timing & initiation/ documentation, involved people (role of surgical nurses), terminology „adverse event“, clear definition & examples for levels, evidence, generic vs. discipline specific lists, …

Strategies how barriers of the inner-setting can be addressed:

IT solution, asynchroneity of process at sign-out, time pressure, responsibilities, culture / climate: failure, hierarchy; communication …



Strategies how esp. motivation can be strengthened:
benefit (clinical relevance – consequences for postop.), less fear …

No external pressure!

Conclusio

“In this chaos, I'm extremely reliant on interpersonal communication, on the rapports and on the interpersonal handoffs, and that's where I think it makes extreme sense for there to be standardized recording system and sharing opportunities."