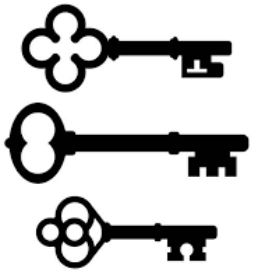
From Florence Nightingale to tomorrow – reflections over quality improvement and improvement research development over time.

2022-09-29



Boel Andersson Gäre MD, PhD, professor, Jönköping Academy/JU and Region Jönköping County

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Region Jönköpings län

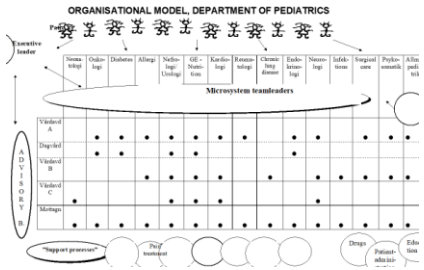
JÖNKÖPING ACADEMY
For Improvement of Health and Welfare

Declaration of interest

This is a ”very personal narrative” ☺

But - there are some systematic traits:

- This narrative is highly subjective and based in my experiences and perspectives from being a ”hybrid”; clinician, leader, teacher and researcher
- I will try to catch some trajectories with illustrations on influences between practice, improvement and improvement research over time and space



They give me what I need,
when I need it and in the way I need it ...
without harm

"The death rate among the patients was worst in February 1855 at 42.7% of all soldiers admitted. After her sanitary reforms, which started on 17 March 1855, the death rate fell to 2.2% by June 1855. She showed a causal link between the sanitary reforms and this dramatic fall in mortality."

Florence Nightingale, (1820–1910)

"The inadequacy of the army's healthcare data analysis led Nightingale to call for the absolute necessity of a statistical department".

Neuhauser D. Florence Nightingale gets no respect: as a statistician that is. Qual Saf Health Care. 2003;12(4):317.

Some reflections on improvement

”Every system is perfectly designed for the results it gets”

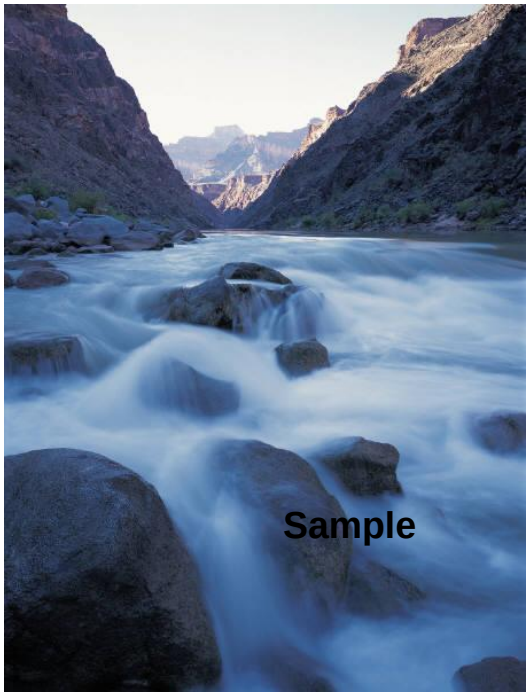
Knowledge by itself is not enough.

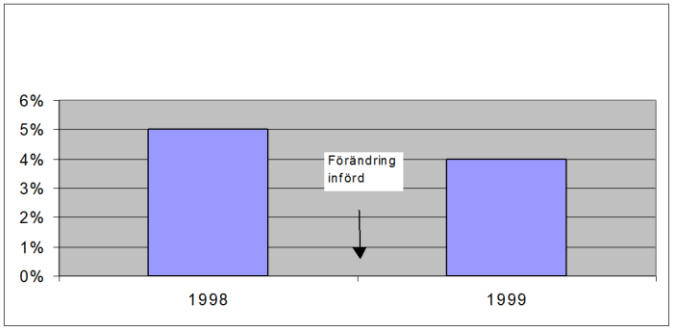
We also need to understand how work is done and how we can change it.

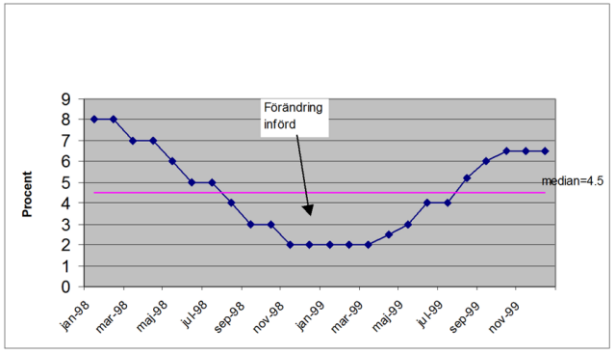
All change is not improvement – but all improvement requires change….and we need to learn the difference from results/feedback

Ignaz Semmelweis, 1818-1847
Known for: Introducing hand disinfection standards

To Study Change is Complex - Time is always present







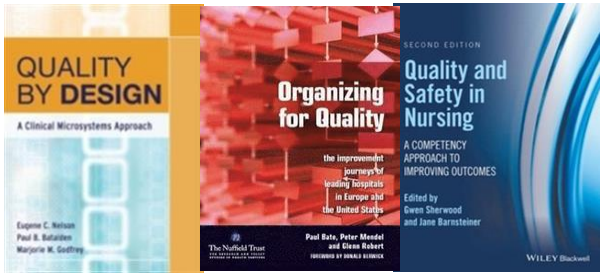
"If you want truly to understand something, try to change it."

Kurt Lewin (1890-1947), "the father of modern social psychology".

Improvement and Improvent science

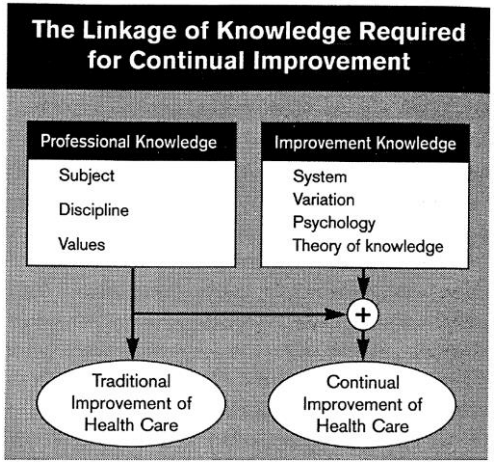
Florence Nightingale

Improvement



Improvement research

Ignaz Semmelweis



Batalden & Stoltz; 1993

Ernest A Codman

Donald Berwick

Linda Headrick

Maureen Bisognano

Linda Cronenwett

Gwen Sherwood

Jane Barnsteiner

How do we use improvement knowledge ? How does it work, what works for whom and where? How do we improve improvement?

Avedis Donadedian

W. Edwards Deming

Paul Batalden

Brent James

Trish Greenhalgh

Mary Dickson-Woods

Paul Bate
Glenn Robert

And many collegues from the Nordic countries who are here today ☺

Improvement

Knowledge domains for health professionals

Professional Knowledge

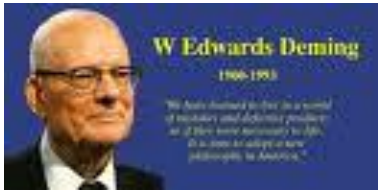
- Ämneskunskap
- Personliga färdigheter
- Värderingar, etik

Forskning och Utveckling

Improvement Knowledge "for all"

- System
- Variation
- Psychology of change
- Theory of learning and change

Increased Value for patients and populations



Efter Batalden & Stoltz, 1993 efter W Edwards Deming

What is a System?

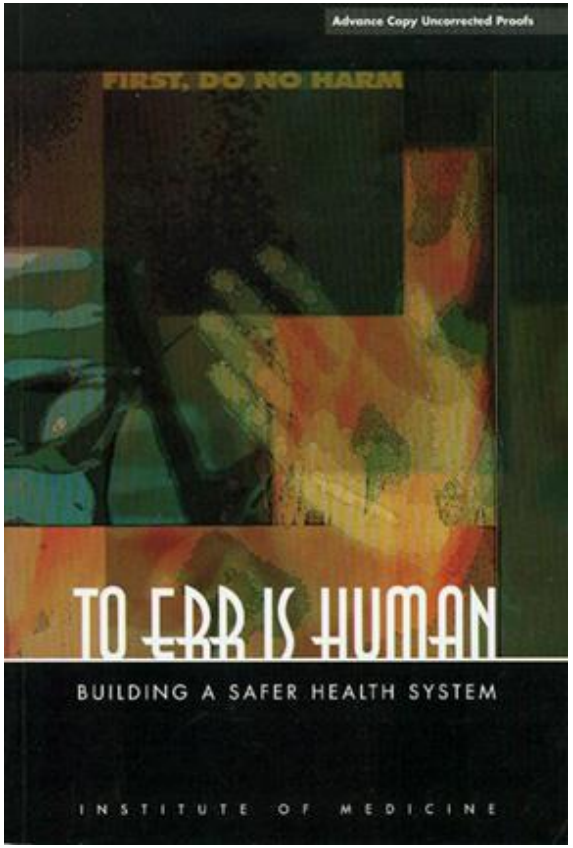
”A system is a network of interdependent components that work together to try to accomplish the aim of the system….

The secret is cooperation between components toward the aim of the organization. We can not afford the destructive effect of competition…”

W Edwards Deming ”The New Economics

To Err is Human…

- 7% of hospitalized patients experience a serious medication error.
- 44,000-98,000 Americans die in hospitals each year from care injuries.



IOM, 2000

Not only in the US – Sweden 6 years later…


SVENSKA DAGBLADET

Måndag den 30 januari 2006 ÅRETS DAGSTIDNING Sedan 1884 | Pris 15 kr

Morrissey fortsätter på den rockiga banan

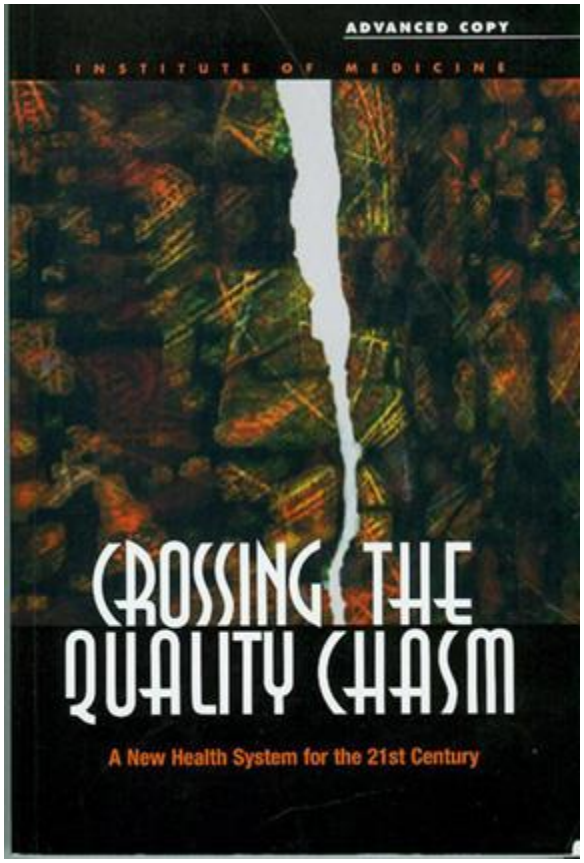
JULIETTE BINOCHE SÖKER ROLLER SOM VÅGAR TA STÄLLNING

Flera tusen patienter dör i onödan varje år

Socialstyrelsen startar stor kartläggning för att förhindra brister och misstag i vården

Drottninggatan får ansiktslyftning

Crossing the Quality Chasm



IOM, 2001

- Serious problems in quality.
- The problems come from poor systems …not bad people.

”Good quality”

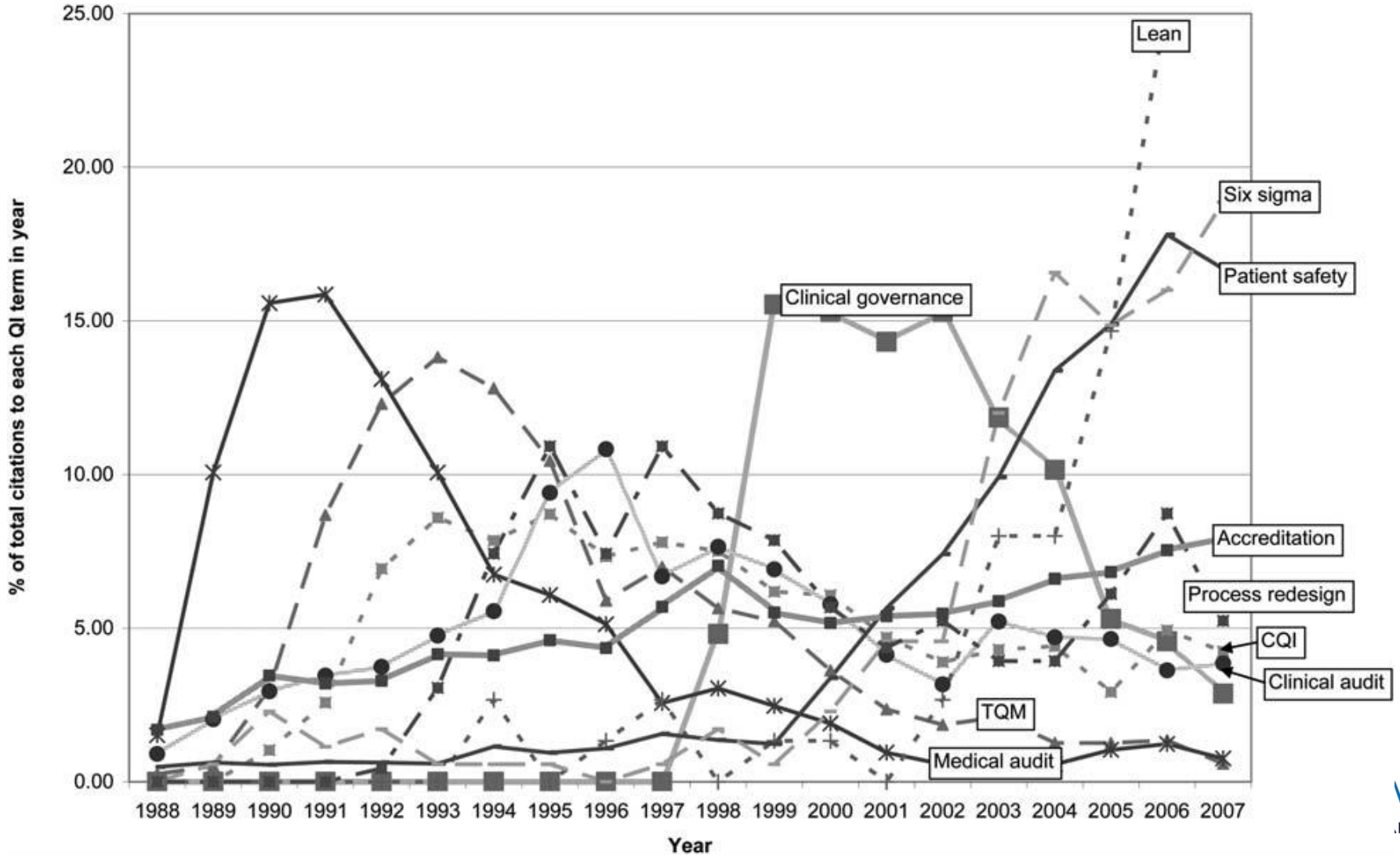
…Healthcare for the population which is

- **safe**
- **evidence based**
- **person centered**
- **effective**
- **equal**
- **timely**

IOM in USA, National Board of Health in Sweden

Pseudoinnovation: the development and spread of healthcare quality improvement methodologies

Kieran Walshe: International Journal for Quality in Health Care 2009; Volume 21, Number 3: pp. 153–159

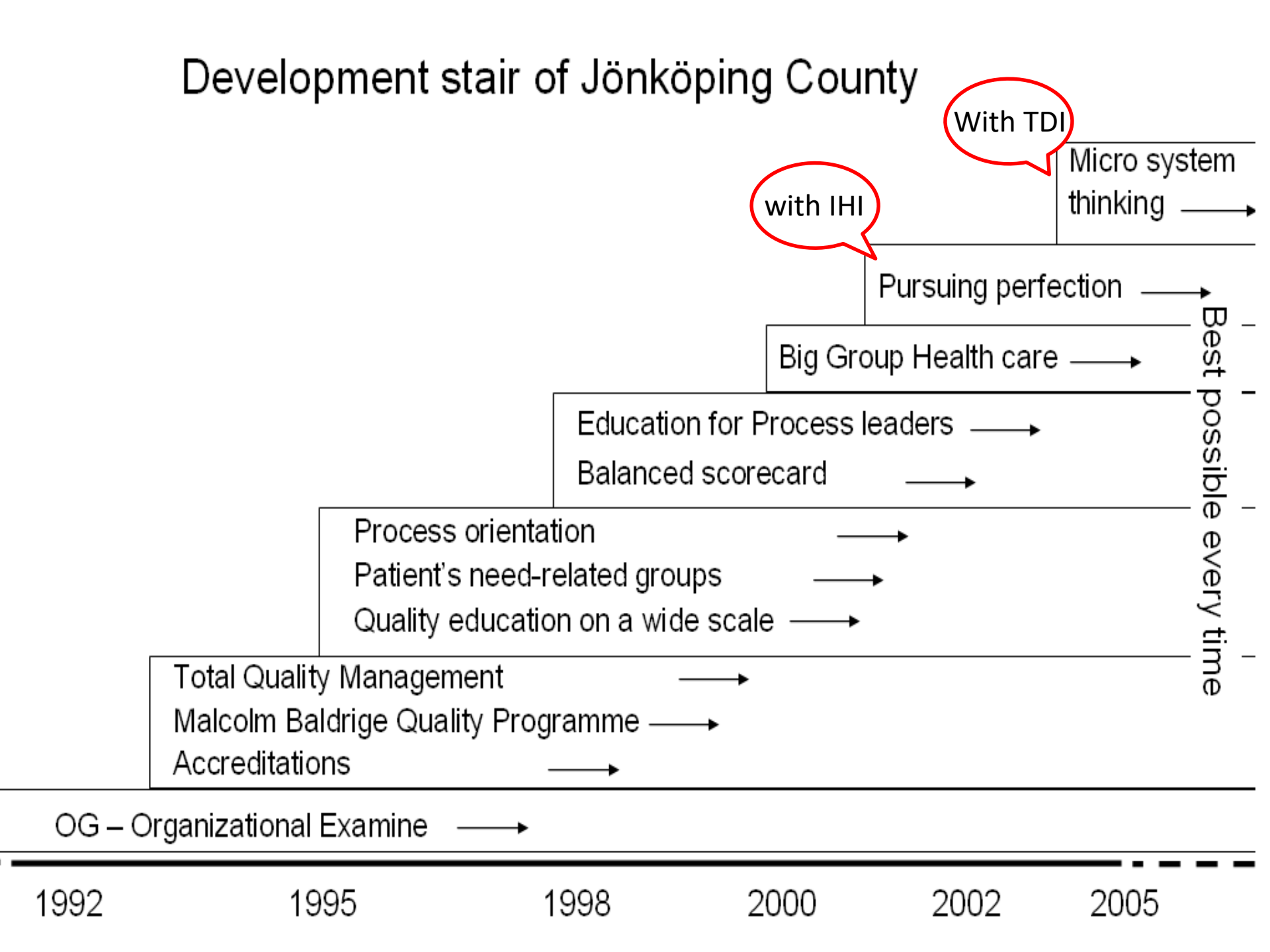


Vision:

For a Good Life in an Attractive County

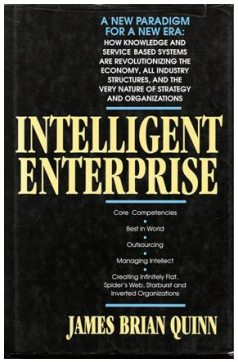
with ”Quality as Strategy”

Region Jönköpings län


Development stair of Jönköping County
With TDI
Micro system thinking
with IHI
Pursuing perfection
Big Group Health care
Education for Process leaders
Balanced scorecard
Process orientation
Patient's need-related groups
Quality education on a wide scale
Total Quality Management
Malcolm Baldrige Quality Programme
Accreditations
Best possible every time
OG – Organizational Examine
1992
1995
1998
2000
2002
2005

”To be among the best, you need to be best on getting better”

Agneta Jansmyr, former CEO in RJL

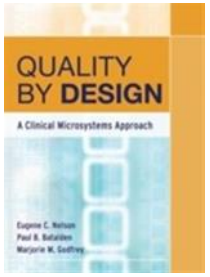


”Why are some service organizations enjoying explosive growth and margins?”

He found that the big focus on the **”smallets replicable units”**, front office **”fixated with frontline perfection”** was key

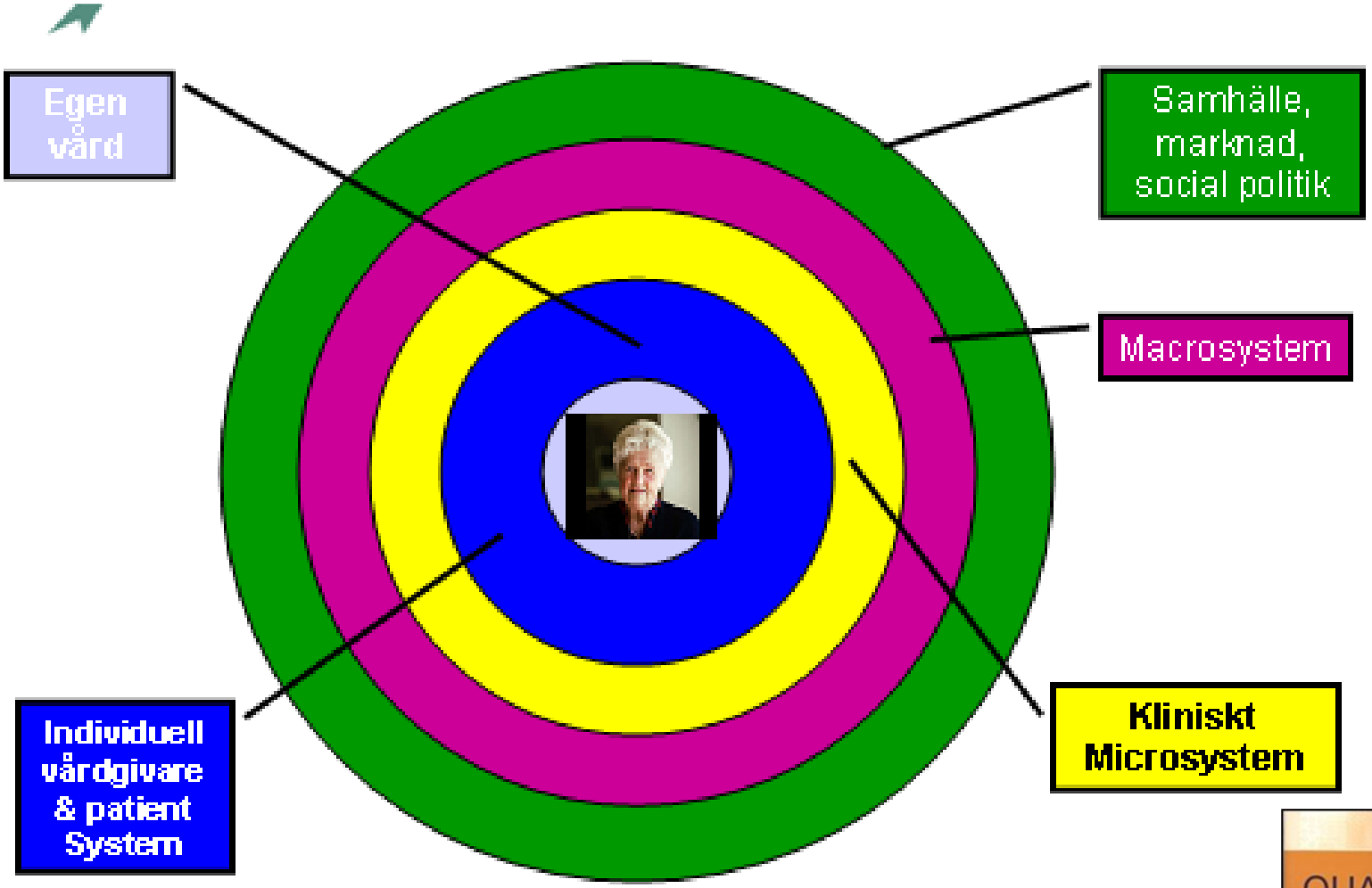
BrianQuinn’s question for healthcare service was inviting…

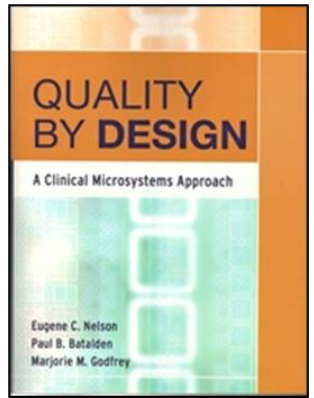
What was the “smallest replicable unit” of healthcare service?



Paul Batalden and TDI took this question seriously

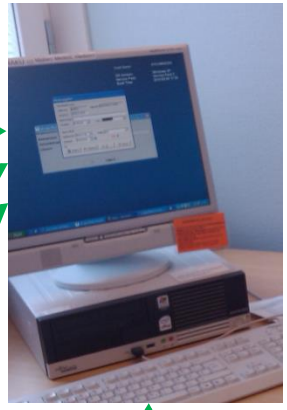
The Microsystem – where value is created





A Microsystem – the Self Dialyses Unit

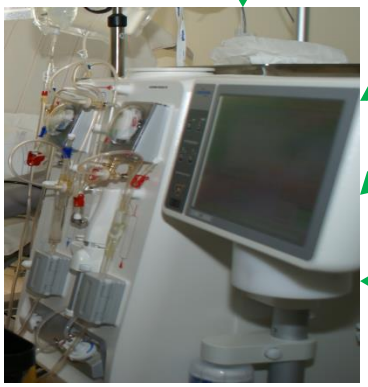
Nurse



IT Systems

Patient

Doctor



Dialysis machine

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Before

Microsystem

Patients/families and professionals

Processes

Meso

Linked Microsystems

Support, R&D, IS

Makro

Governance

Tomorrow

the ”Together” model, since 2012

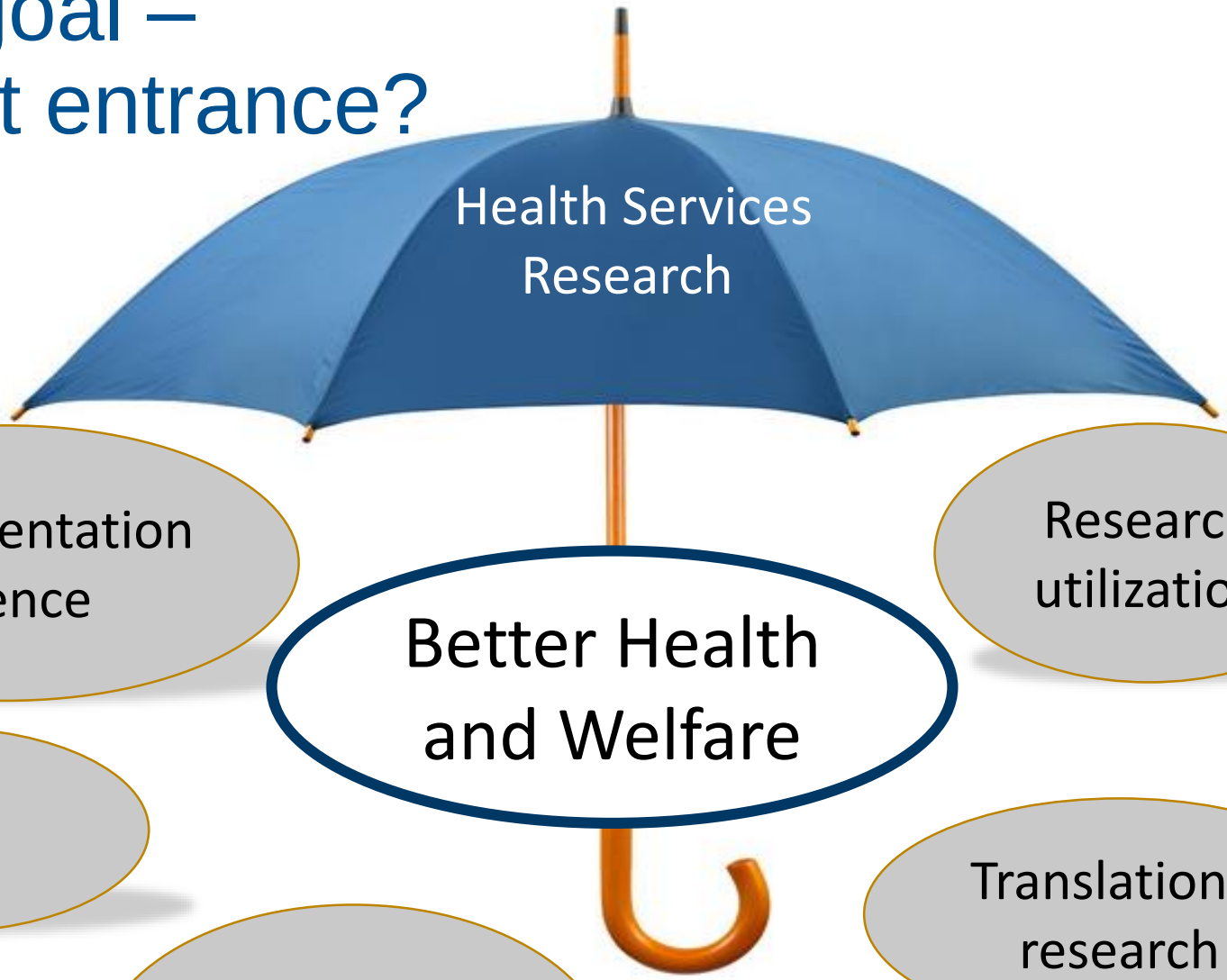
Integrated care models for health

Region Jönköpings län

Welfare Services – a complex system?

Improvement Science

Same goal – different entrance?



Implementation science

Research utilization

Better Health and Welfare

??

Translational research

Improvement science

Johan Thor, 2022
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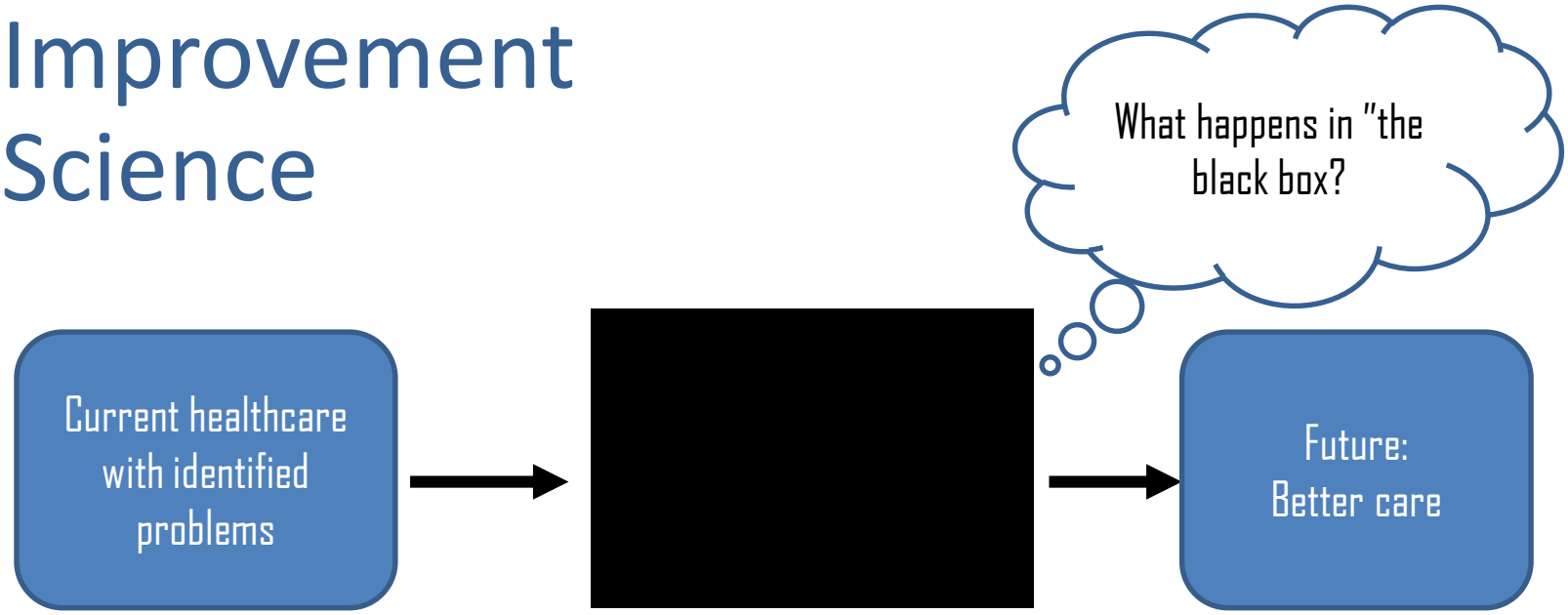
Improvement Science



"*In fact, many quality improvement interventions are black boxes that are difficult to reproduce in new contexts. Improvement science now needs to start the difficult task of the systematic accumulation and synthesis of knowledge*".

Marshall et al., (2013)

Engaged Scholarship

- The gap between theory and practice: a problem of *knowledge production* rather than of transfer

- *Engaged scholarship*, an approach to generating knowledge that advances both science and practice: "***a participative form of research*** *for obtaining the different perspectives of key stakeholders (researchers, users, clients, sponsors, and practitioners) in studying complex problems.*"

Van de Ven, AH. Engaged scholarship: a guide for organizational and social research. Oxford; New York: Oxford University Press; 2007.

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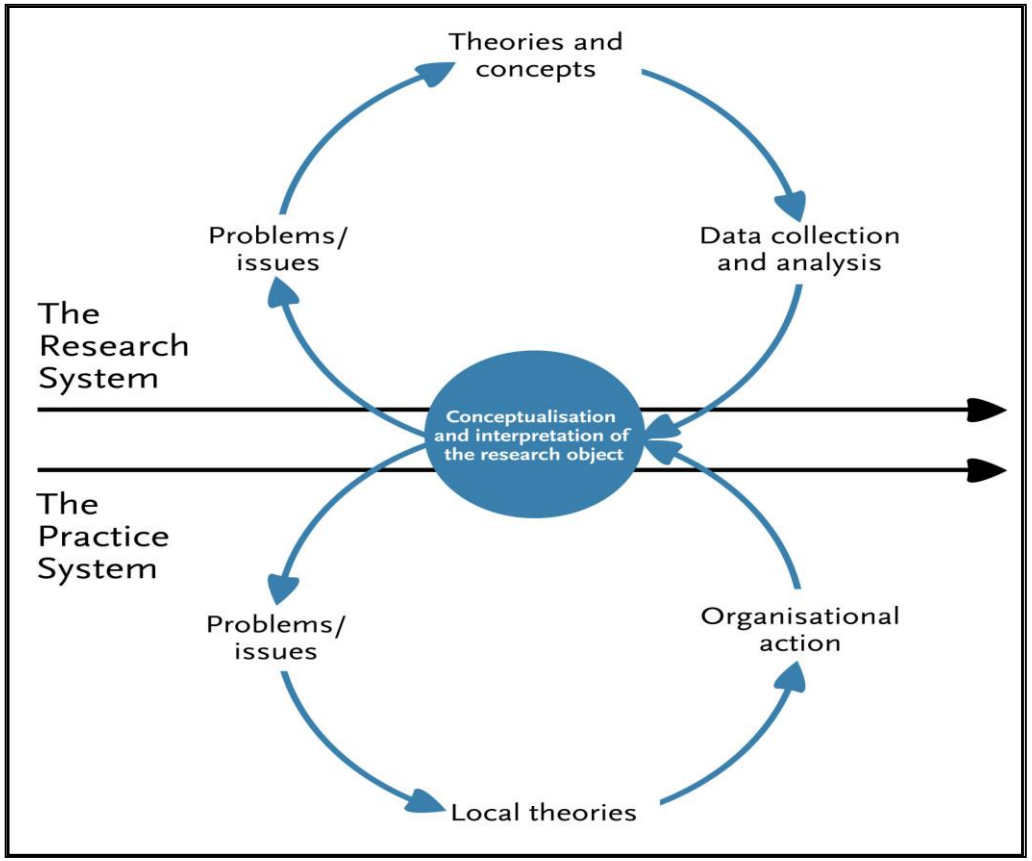
A Model for Knowledge Creation through Interactive Research
"Research With"



A research approach with a threefold task;

1. the **scientific** task
2. the **practice-oriented** task
3. the **educative** task

P-E Ellström, 2007

Improvement & Implementation

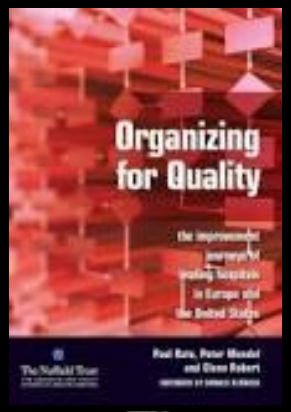
Improvement

- Starts in the organisation and its goal to meet patients' and families' needs in improved ways
- Follows the organisations' ability and capacity to meet set goals regarding patient outcomes and costs

Implementation

- Starts from knowledge which has shown better care and health but is not used systematically
- Follows the degree of use of available best knowledge and related effects.

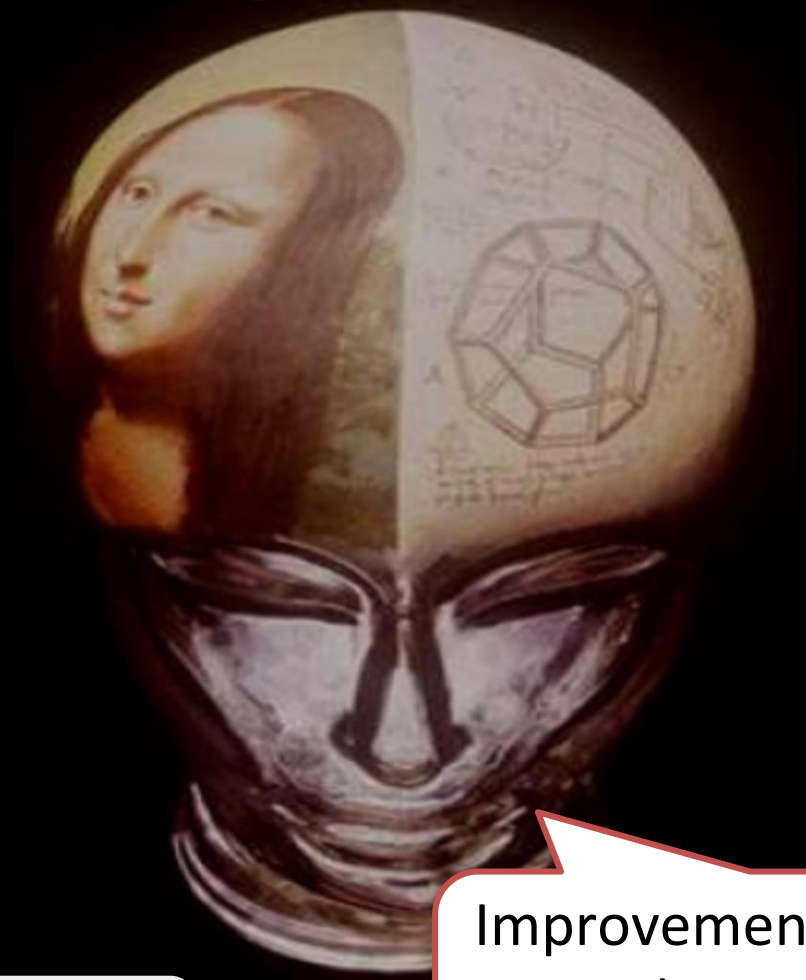
Bridging the Silos: A Comparative Analysis of Implementation Science and Improvement Science. Frontiers in Health Services. 2022;1(1):13.



Human as well as technical factors and processes

The sociology and organisation of improvement

Organisation, culture, language & cognition, identity, leadership, structure, strategy, citizenship etc



The science and technology of improvement

Scorecards, metrics, measurement systems and technology, clinical pathways, EBM

Improvement is ”a human and organizational accomplishment”.

Bate P, Mendel P, Robert G, et al. Organizing for quality: the improvement journeys of leading hospitals in Europe and the United States: Oxford ; New York: Radcliffe; 2008.

2013

QUASER
Quality and Safety in European Union Hospitals

Attention paid to challenges

Fulop N, Quaser

UCL, King's College London, Imperial College London, Jönköping University Sweden, Erasmus University Netherlands, ISCTE Portugal, Stavanger University Norway

Quality and safety in European Hospitals. UK, Portugal, Holland, Norway Sweden

The Health Foundation Inspiring Improvement | Improvement Science

Improvement Science Development Group (ISDG)

Map of Improvement Science Centres http://tinyurl.com/ISCworld

Improvement Science Environmental Scan

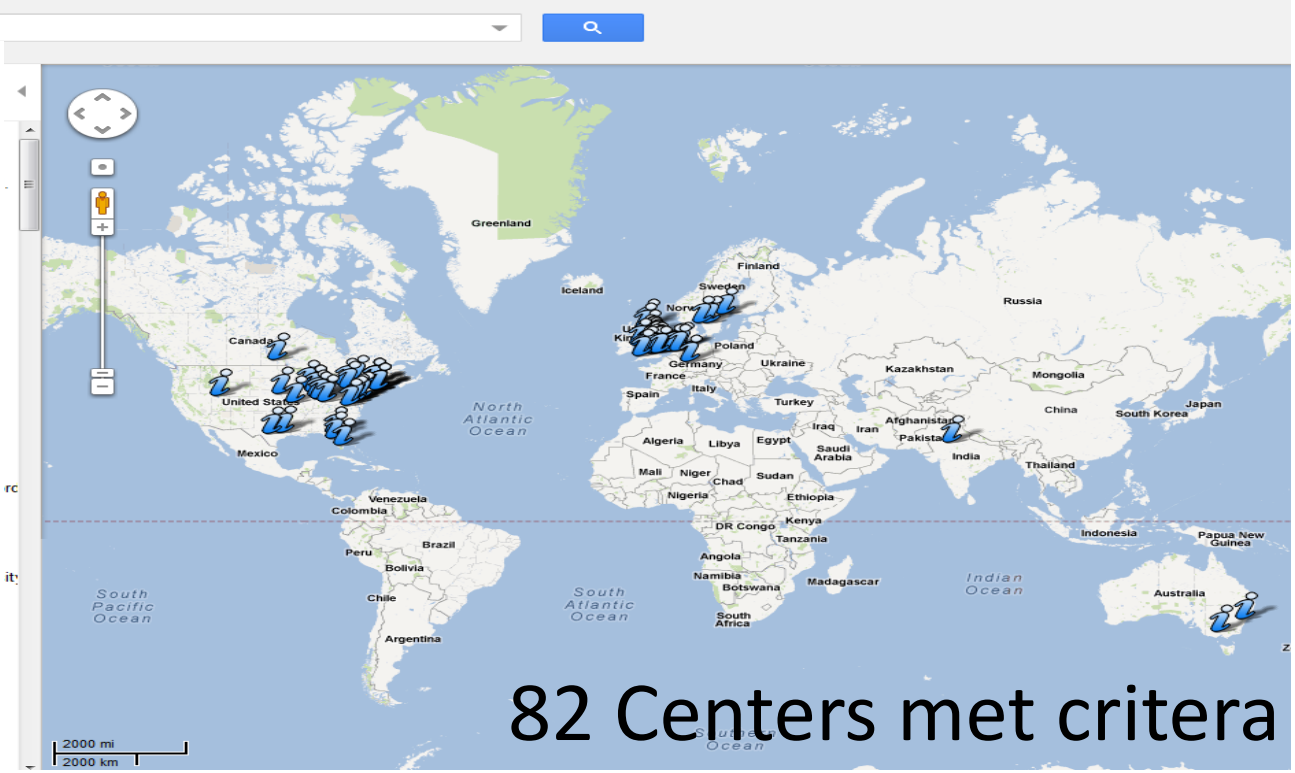
Commissioned by the Health Foundation
Carried out by:

UNIVERSITY OF TORONTO

Ross Baker, Kaveh Shojania
Lisha Lo

UCL

Naomi Fulop
Angus Ramsay



The Vinnvård Research Programme

Vårdalstiftelsen, Vinnova, SALAR and the Ministry of Health and Social Affairs, 2008

Four major goals:

1. To increase the use of research-based knowledge
2. To develop innovative ways of organizing work in health and social care
3. To stimulate the development of institutional learning
4. To establish research regarding how to lead, manage and develop practices in health and social care organizations at Swedish universities

vinnvård

Forskning för ständiga förbättringar i vård och omsorg

Some results from the Vinnvård program

3 University centers

> 30 PhD theses

> 200 publications

International collaboration

8 fellows in improvement science

Arenas for learning, sharing and collaboration in practice and academia

New programs in education

Characteristics of Improvement Sciences

Approaches/Designs/Methods

- Participative research; Action, Interactive…
- ”Pragmatic worldview”
- Dynamic, Iterative, Emerging, Cyclic, over time
- Evaluation; Learning, Realistic, Developmental...
- Multidisciplinary/multiprofessional
- Mixed methods
- Case methodology
- Coproduced with stakeholders

Andersson Gäre, 2020

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FOR IMPROVEMENT OF HEALTH AND WELFARE

The Mission of Jönköping Academy

Jönköping Academy´s mission is to conduct research and education in improvement science and leadership for change. Jönköping Academy also supports the application of new knowledge (and innovation) in practice, for the renewal and improvement of health- and welfare services.



www.jonkopingacademy.se

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What is in the air for the future ?

Situation

Twenty-five years after the founding of the Institute for Healthcare Improvement (IHI). Much had been tried, learned. <u>Will the future be like the past?</u>

Paul Batalden

Imagining & exploring some implications

Q 1.0	Q 2.0	Q 3.0
Thresholds	*Organization-wide systems*	*Coproduction of health*
"How might we establish thresholds for good healthcare service?"	"How might we use 'enterprise-wide systems' for best disease management?	"How might we improve the value of the contribution that healthcare service makes to health?"
Illustrative themes: • Standards • Inspection • Certification • Guidelines	Illustrative themes: • Systems, processes • Reliability • Customer-supplier • Performance measurement	Illustrative themes: • Service-making logic • Ownership of "health" • Kinship of coproducing persons • Integration of multiple knowledge systems • Value-creating architecture

Not 1.0 vs 2.0 vs 3.0
Rather 1.0 + 2.0 + 3.0

Pbb & Tjf
21/04/21

A System Journey towards Coproduction

Methods	Examples of development From...	 towards more of...
Co-production and value models development	Methods and ideas tested in practice, tacit knowledge and development	Wider system engagement, more explicit theoretical models and research
Person-centered care	Unclear roles and few PPE within RJC	Networks with PPE, patient- and PEER supporters, more of paid PPE-work
PPE within helathcare (staff and networks)	Isolated co-design initiatives and QI teams with PPE	Development of different co-design methods and more systematic approaches with PPE
Co-design and PPE participating in QI	"The patient"	Variety of stories from many PPE, different context and populations
Storytelling	Esther 	Britt-Marie, family and friends 
Personas		

Sofia Persson, 2021

Region Jönköpings län

"Healthcare Service Coproduction" enables new ways of creating value:

Solve problems:

- Value shop—customized response to particular need
- Value network—responding at scale for a population

Make products:

- Value chain—standardized sequential processes

Øystein Fjeldstad
Univ. Oslo

Learning Healthsystem

A learning health care system is one in which science, informatics, incentives, and culture are aligned for continuous improvement and innovation, with best practices seamlessly embedded in the care process, patients and families active participants in all elements, and new knowledge captured as an integral by-product of the care experience.”

Roundtable on Value & Science-Driven Health Care - IoM

2012

2. The purposes, benefits and value of developing and using data-driven technologies

A. Purpose, value and benefits

Principle

Data-driven technologies should be designed and used for clearly defined purposes that uphold the social values[16] of the NHS and benefit individuals, the NHS, or society.

In doing so, they should

1. Enable fair access to their benefits by all social groups.
2. Realise the value of patient data created as part of NHS care.
3. Not be used for direct marketing or similar commercial activities.

and, depending on their purpose, they should

4. Preserve and enhance direct contact between healthcare professionals and patients.
5. Enable safe and effective health and social care.
6. Support people to manage their own health.
7. Enable research and innovation.

Report The Academy of Medical Sciences, UK, 2018

The Global Challenge
Planetary Health

Complex problems need complex solutions

There is no ”quick fix” -
but a need for deep and broad awareness and knowledge

- and **capability for change**

”There is a crack in everything, that’s how the light gets in"

Leonard Cohen

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Thank you to Paul Batalden, Johan Thor and Ann-Christine Andersson for letting me use some of your very helpful illustrations!