

# Technology in the Perspective of Integrated Care Models & Independent Living

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# Roadmap

1. supply & demand
2. consequences for health
3. integrated care
4. smart care, cure & community
5. sharing expertise
6. care@home
7. (clinical) decision support
8. ...in conclusion

# 1.

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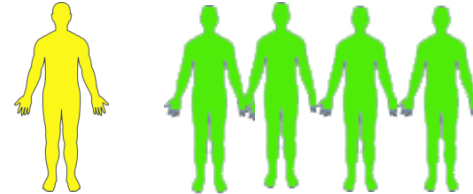
*Supply & demand*

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# population aged (>65) in proportion to working population (18-65)

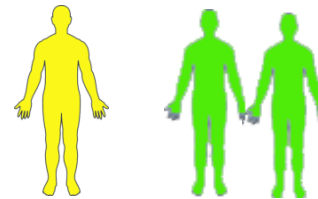
## 2007 EU

- average  $\sim$  1:4
- differences between countries



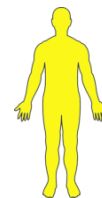
## 2050 EU

- 1:3 (NL)
- 1:1.5 (Italy and Spain)
- average  $\sim$  1:2



## 2050 China

- average  $\sim$  1:<1



# % population with one or more chronic diseases

- > 1 chronic disease
- 1 chronic disease
- 0 chronic disease

NL population



2005



age 75



65-74



55-64



25-54



15-24



0-14





# 2.

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## *Consequences for health care*

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# Paradigm shift health care

- institutional care > community care
- hospital care > primary care
- formal carers > informal carers
- curative approach (wait) > prevention (anticipate)
- mono-disciplinary > trans-disciplinary

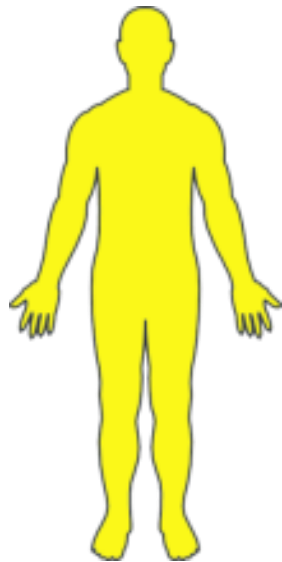
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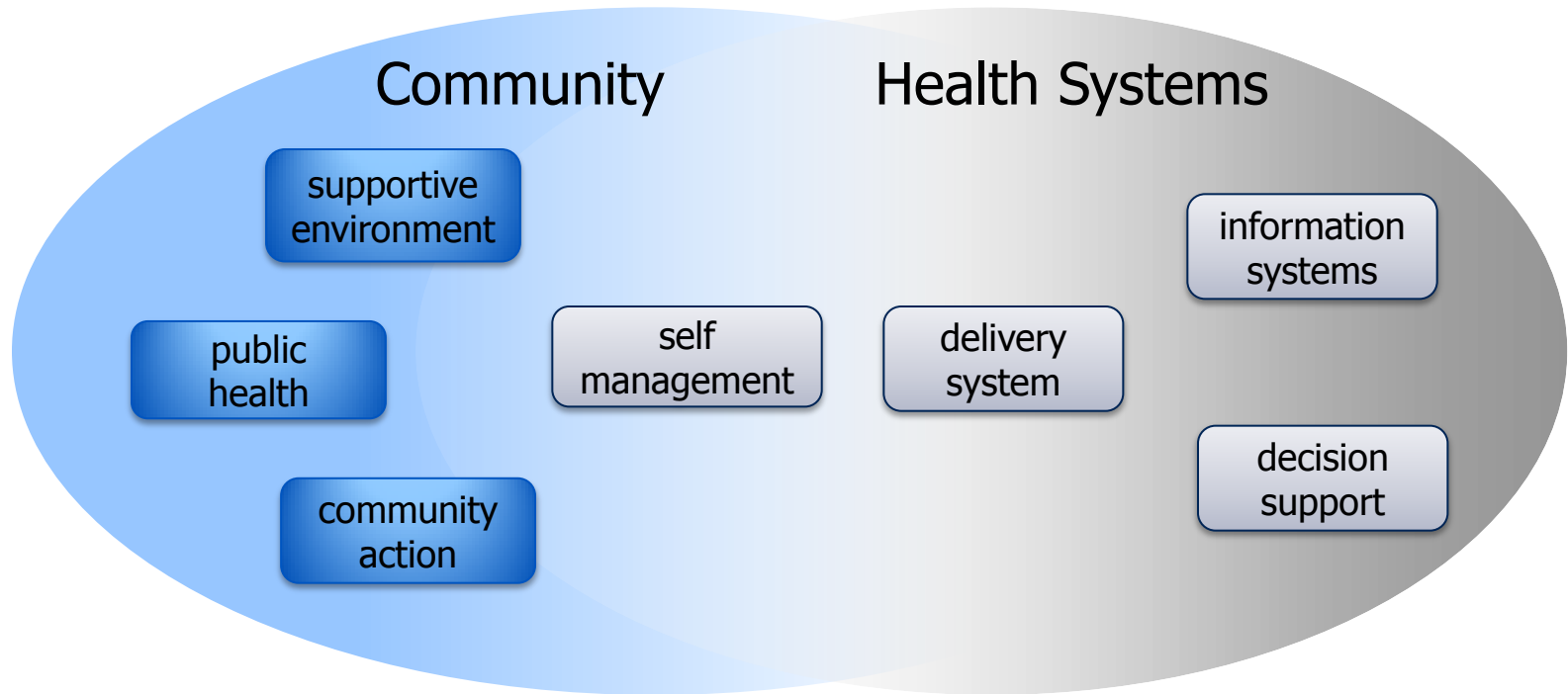
## *Integrated Care*

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# Support & Care by the Community



# Integrated Care



**improved outcomes**

# 4.

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*Smart care, cure & community*

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# Smart care, cure & community

## **Delivery systems**

- logistics, team management

## **Self management**

- eHealth +devices

## **Decision support**

- real-time best personalized  
practise base evidence

## **Information systems**

- Integration bio-informatics, clinical  
& community data
- output value/benefit vs resources

## **Supportive environment**

- domestic monitoring
- communication
- workplace

## **Public health**

- learning environment 24/7
- skills development

## **Mobilise community**

- social networking

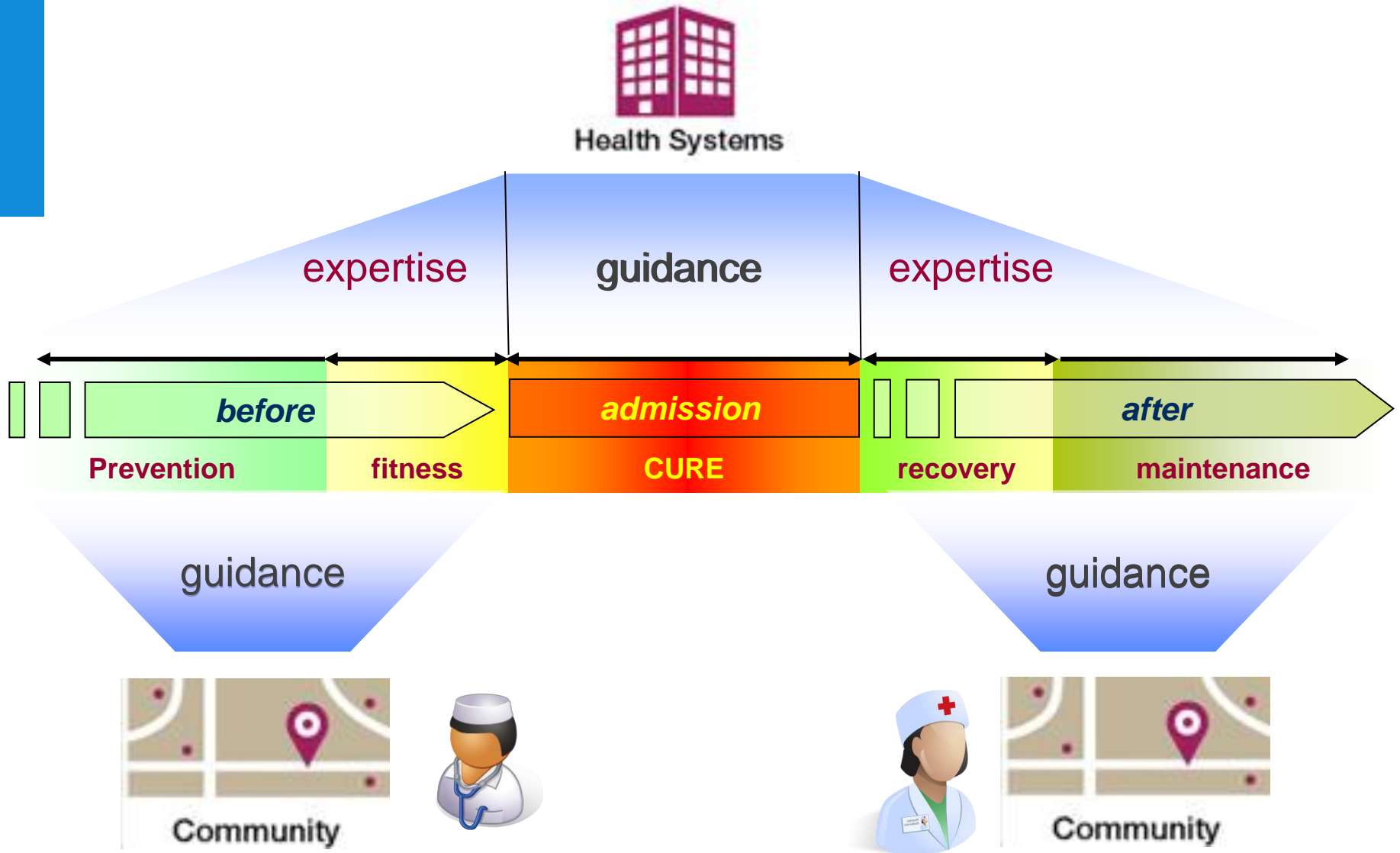
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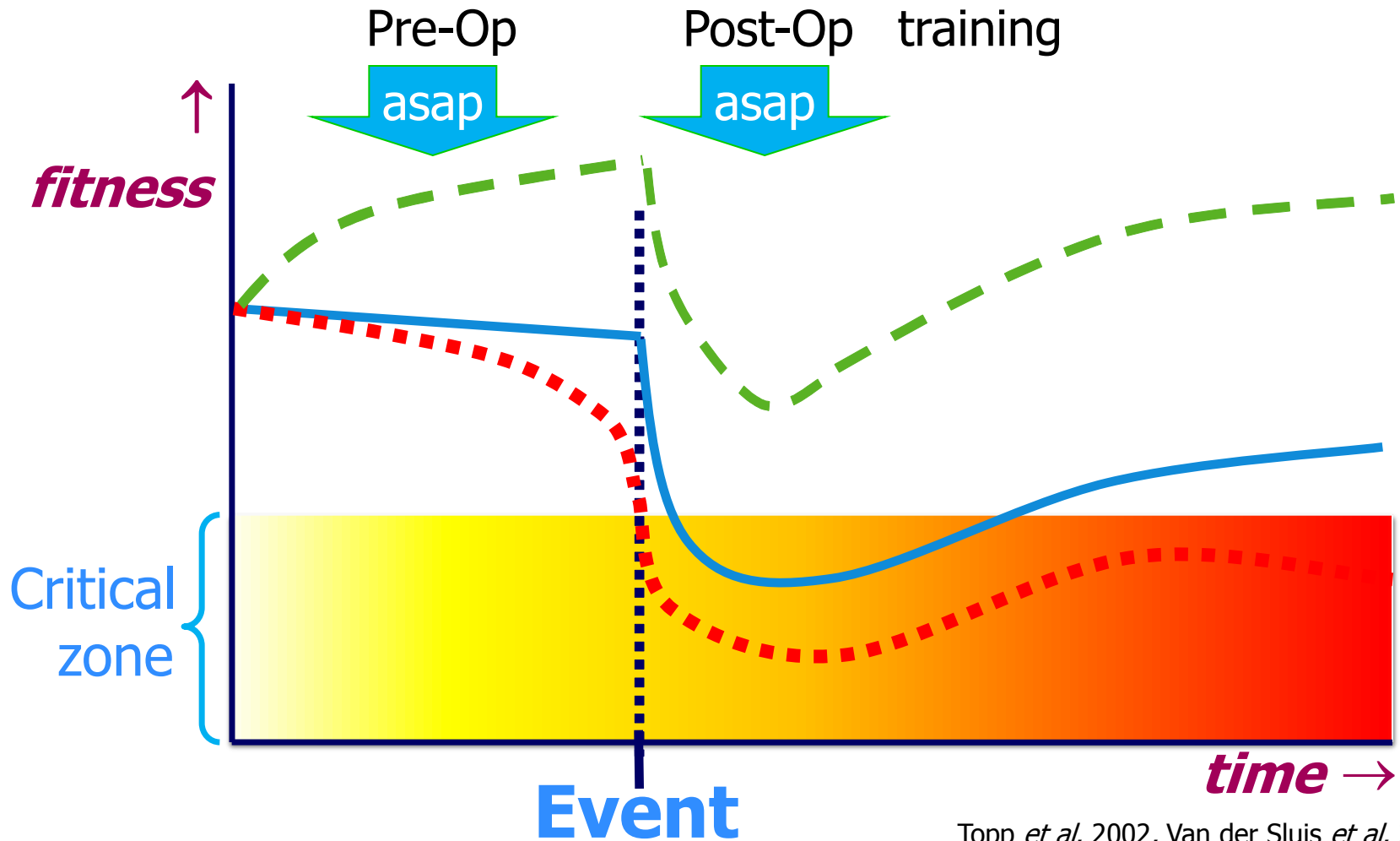
## *Sharing expertise*

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# smart care, cure & community



# Fragility & major life events **surgery**



Topp *et al*, 2002, Van der Sluis *et al*, 2007

# 6.

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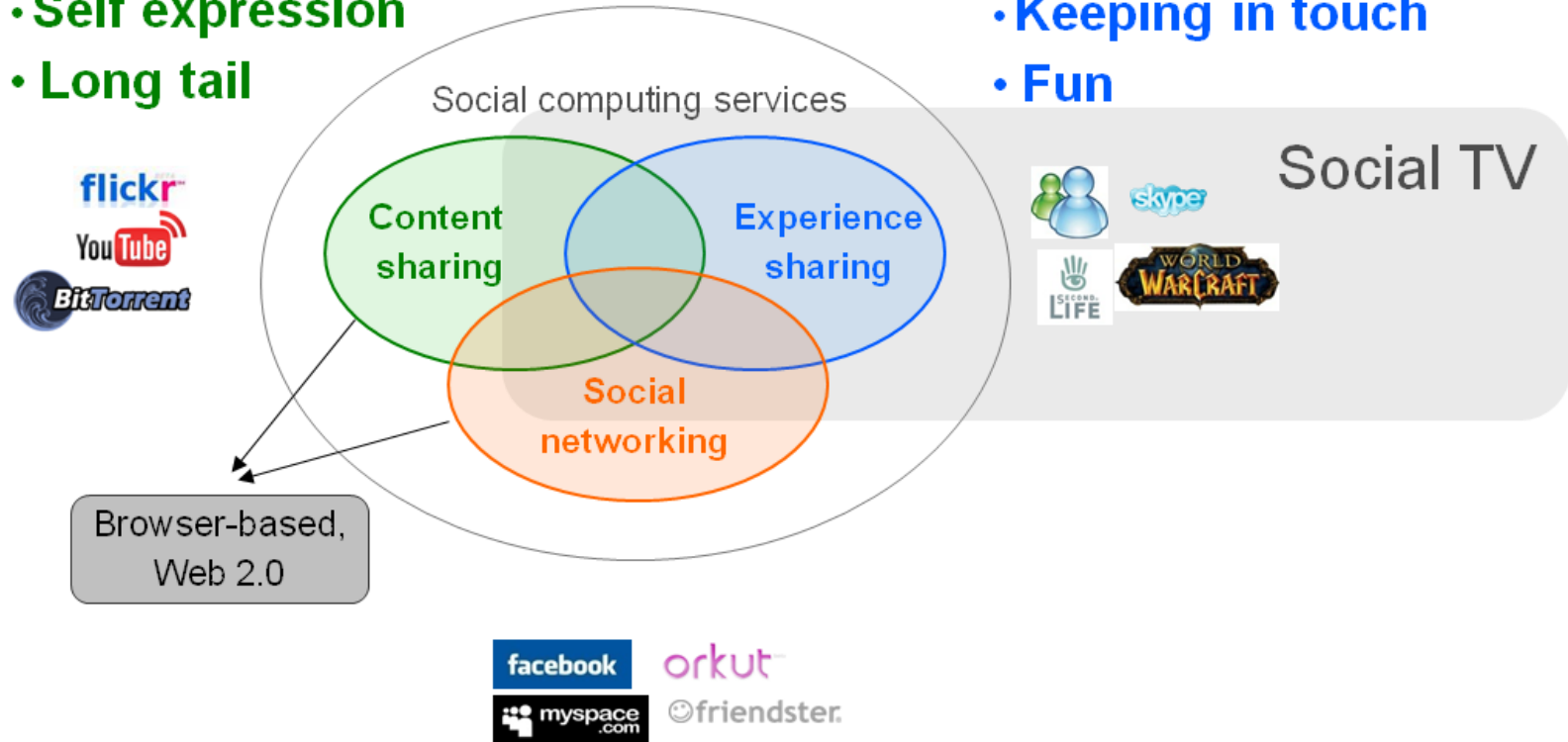
*Care@Home*

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# Social computing services

- Self expression
- Long tail

- Keeping in touch
- Fun



- Making new friends
- Maintaining your social network

# SmartTV: bridge to your Health



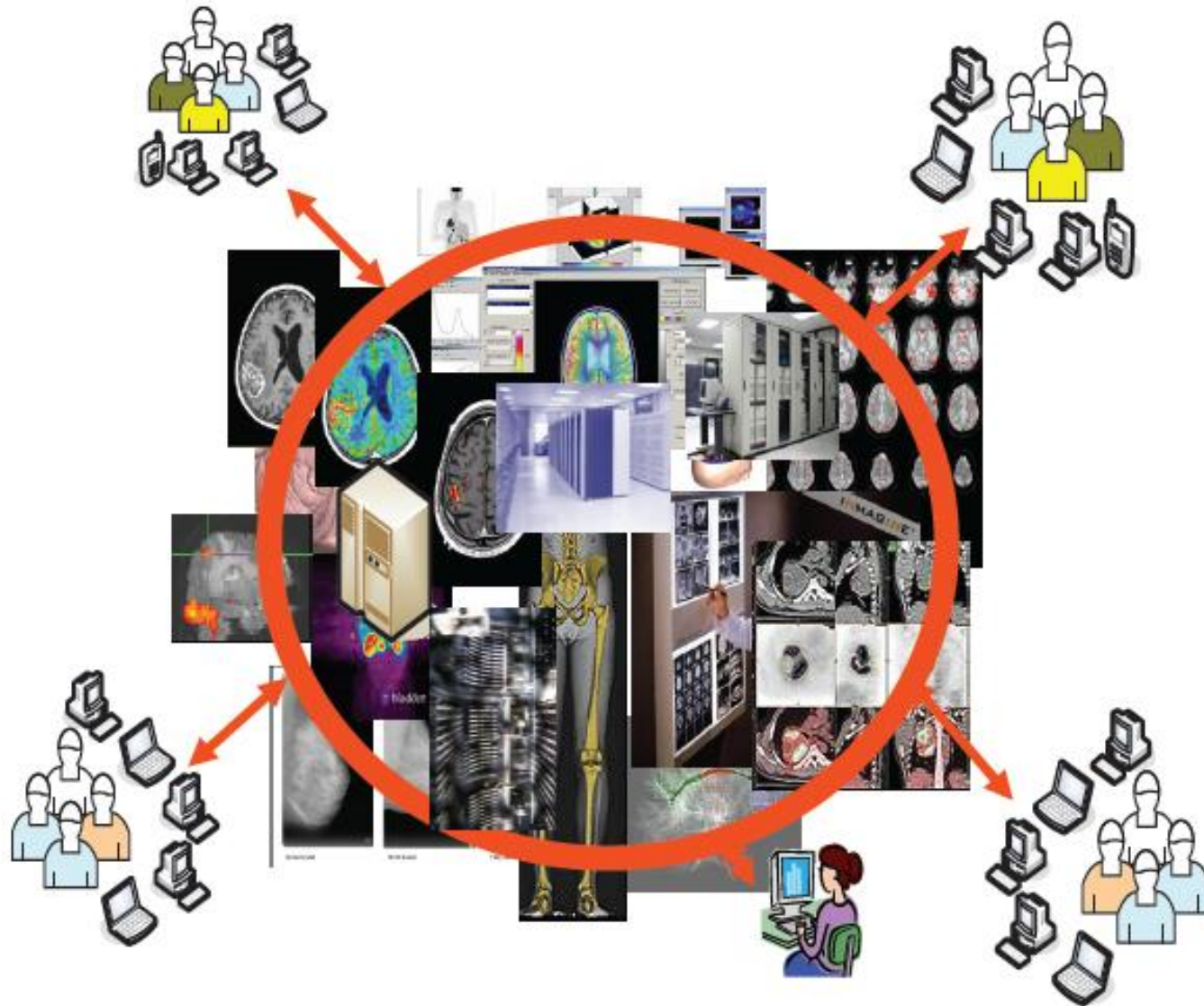
# 7.

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*(clinical) decision support*

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# clinical decision support



# evidence based medicine

**TRIP Database:** <http://www.tripdatabase.com/>  
**The SchARR Guide :** <http://www.shef.ac.uk/~scharr/ir/netting>  
**Medical SmartSearch :** <http://sumsearch.uthscsa.edu/>

## Med search engines (journals)

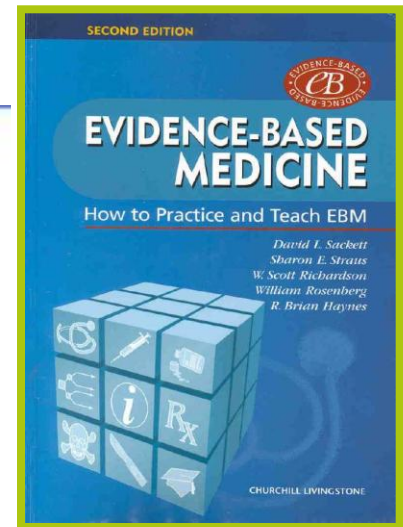
**Medline databases :** <http://www.nlm.nih.gov>  
**Pubmed :** <http://www.ncbi.nlm.nih.gov/PubMed>  
**Embase :** <http://gateway.ovid.com>  
**òr** <http://www.embase.com>  
**CINAHL :** <http://www.cinahl.com>

## EBM sources

**Cochrane Library :** <http://www.cochrane.org>  
**Dutch Cochrane Center :** <http://ww.cochrane.nl>  
**Clinical evidence :** <http://clinicalevidence.org>

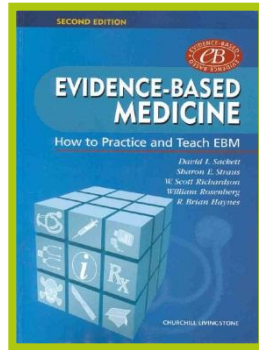
## Current contents

**Web of Science :** <http://portal.isiknowledge.com>  
**National library for health :** <http://www.nelh.nhs.uk>  
**Sociological Abstracts :** <http://www.nisc.com/factsheets/soci.asp>  
**PsycInfo :** <http://www.apa.org/psycinfo>

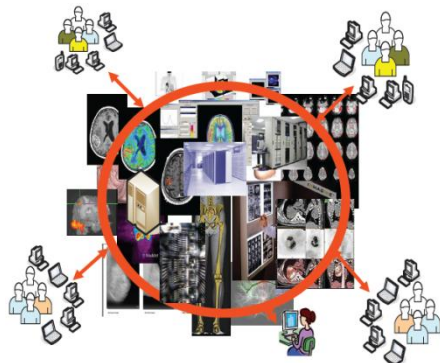


**> 1.5 miljoen  
research papers  
per year**

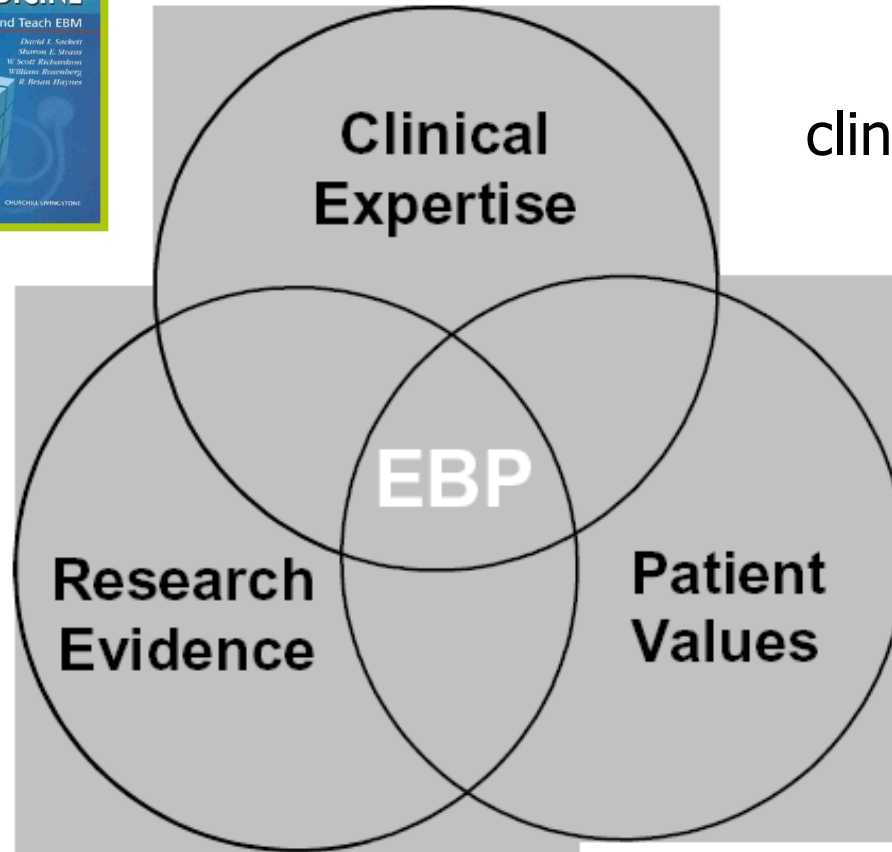
# evidence based practise



EBM  
protocols



bio-informatics



experience  
clinical context

dignity  
socio-cultural  
preferences

**perceived  
outcome**

# 8.

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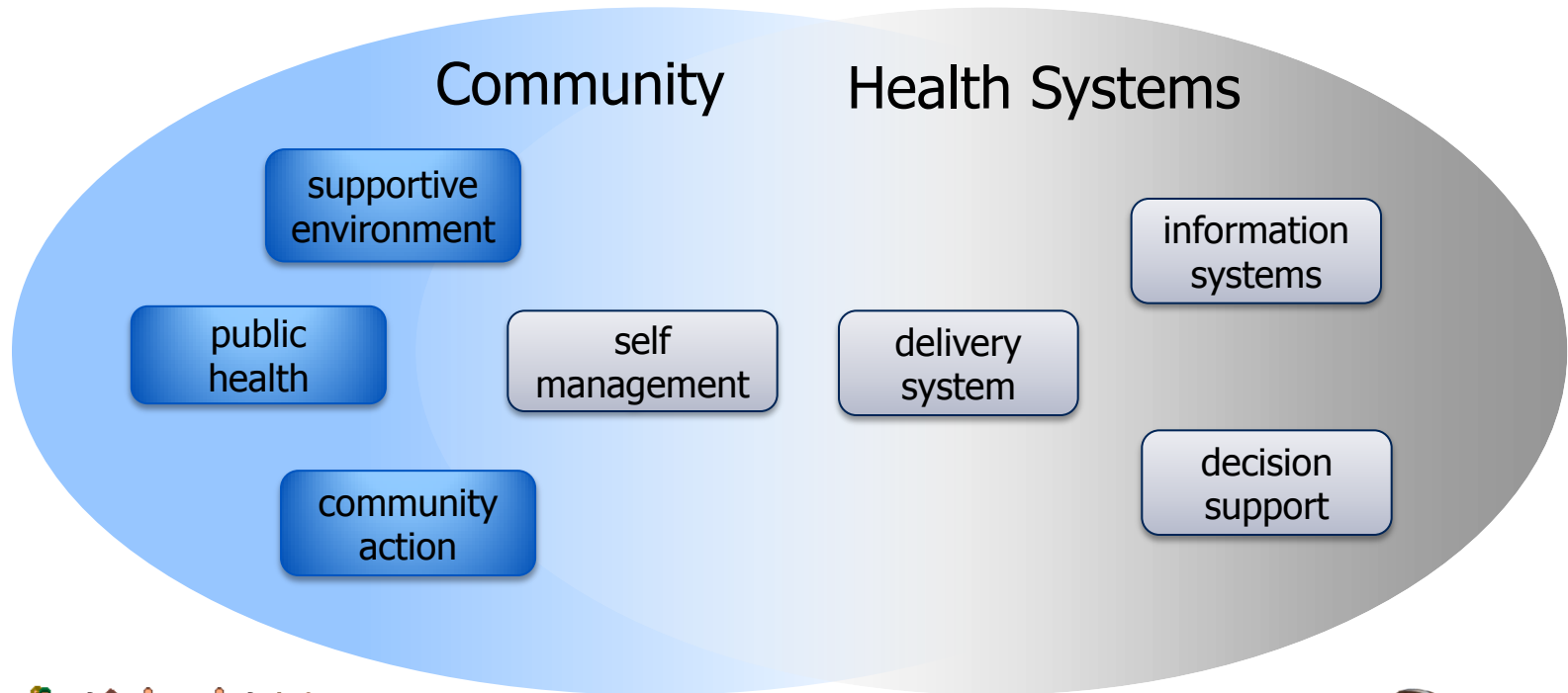
*In conclusion*

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# in conclusion

- capacity building > community
- smart collaboration > organize > mobilize
- integration of community data & health care data
- ict trends in society supports > integration
- considering trends... where to invest..?  
.....for best benefit science, society & business
- interconnectivity > informed
- usability > personalization
- intelligence > adaptive systems
- plug & play

# Integrated Care



**activated community**



Informed, activated patient

productive  
interactions

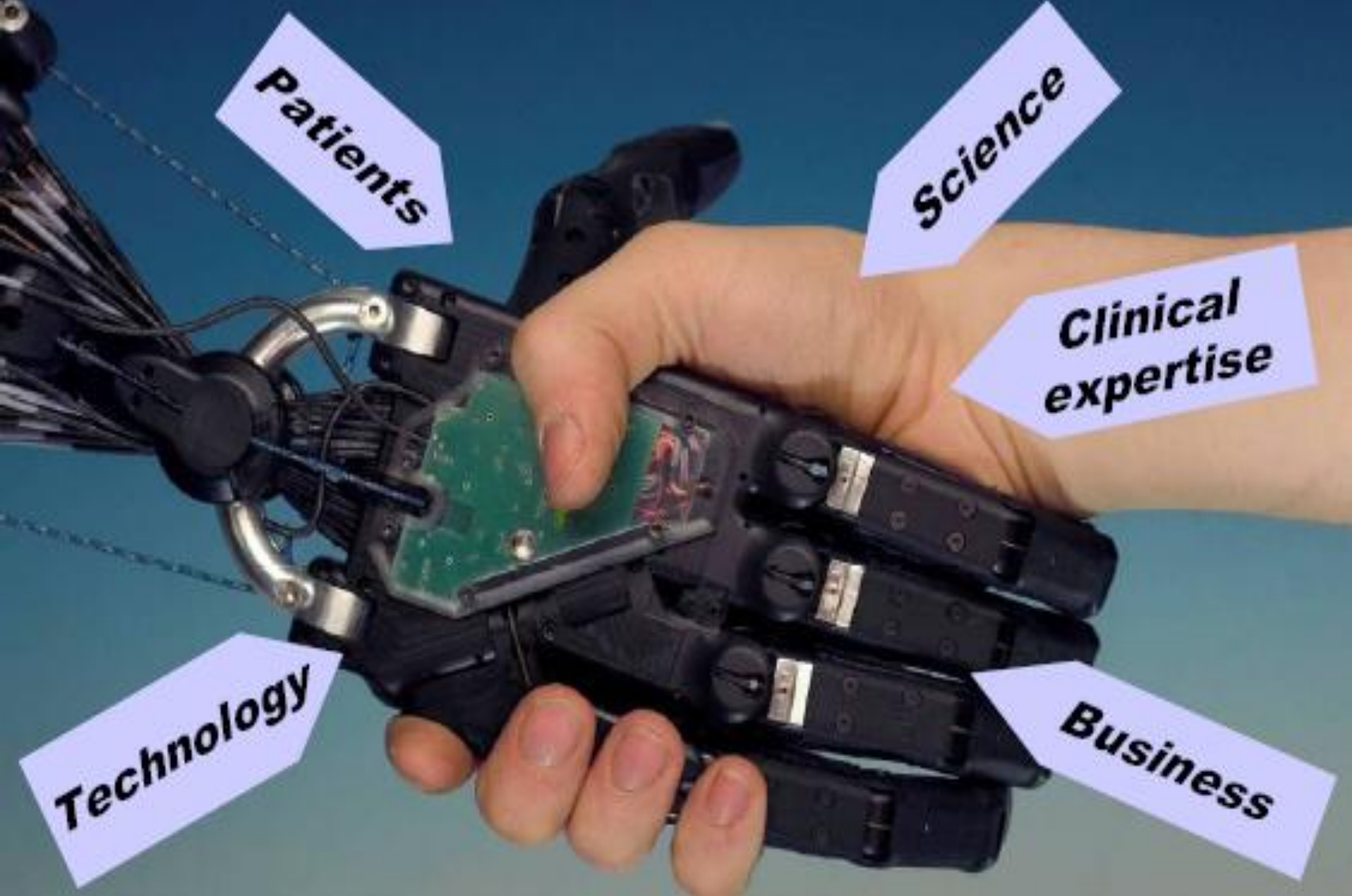


Prepared, proactive practice team



**support partners**

**improved outcomes**



Thank you!

*The gain of knowledge is in it's application*

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