

# What we do and why: the Knowledge Translation strategy

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University of Brescia, Don Gnocchi Foundation  
Director of Cochrane Rehabilitation

Trusted evidence.  
Informed decisions.  
Better health.





# Disclosure

ISICO (Italian Scientific Spine Institute): stock

Director of Cochrane Rehabilitation

Medtronic: consultant

Janssen Pharmaceutical: advisory board

European Journal of Physical and Rehabilitation Medicine: congress expenses



# The Know-Do Gap

High quality evidence is not consistently applied in practice<sup>1</sup>

Examples in clinical practice:

- Statins decrease mortality and morbidity in post-stroke, but they are under-prescribed<sup>2</sup>
- Antibiotics are overprescribed in children with upper respiratory tract symptoms<sup>3</sup>

Examples in health system policies:

- Evidence is not frequently used by WHO<sup>5</sup>
- Out of 8 policymaking processes in Canada<sup>4</sup>
  - Only 1 was fully based on research
  - Other 3 were partially based on research

1. Majumdar SR et al. From knowledge to practice in chronic cardiovascular disease: a long and winding road. *J Am Coll Cardiol*. 2004; 43(10):1738-42
2. LaRosa JC et al. Effect of statins on the risk of coronary disease: a meta-analysis of randomized controlled trials. *JAMA*. 1999; 282(24): 2340-6
3. Arnold S et al. Interventions to improve antibiotic prescribing practices in ambulatory care. *Cochrane Database Syst Rev*. 2005: CD003539
4. Lavis J et al. Examining the role of health services research in public policy making. *Milbank Q*. 2002; 80(1): 125-54
5. Oxman A et al. Use of evidence in WHO recommendations. *Lancet*. 2007; 369(9576): 1883-9.

# Why there is the Know-Do Gap ?

Evidence not focused on the end-users:<sup>1</sup>

- Epidemiologically and methodologically focused
- Missing details on interventions and settings

Lack of knowledge management skills and infrastructure<sup>2</sup>

- Individual health care professionals
  - Volume of, and access to research evidence
  - Time to read
  - Skills to appraise, understand and apply research evidence
- Health care teams (standards of care)
- Health care system and organization (finance and equipments)
- Patients (adherence and compliance)

1. Glenton C et al. Summaries of findings, descriptions of interventions, and information about adverse effects would make reviews more informative. J Clin Epidemiol 2006; 59: 770-8.

2. Grimshaw JM et al. Changing physician's behavior: what works and thoughts on getting more things to work. J Contin Educ Health Prof. 2002, 22(4): 237-43

# Knowledge Translation

A dynamic and interactive process that includes the synthesis, dissemination, exchange, and ethically sound application of knowledge to improve health, provide more effective health services and products, and strengthen the health care system

Canadian Institute of Health Research<sup>1</sup>

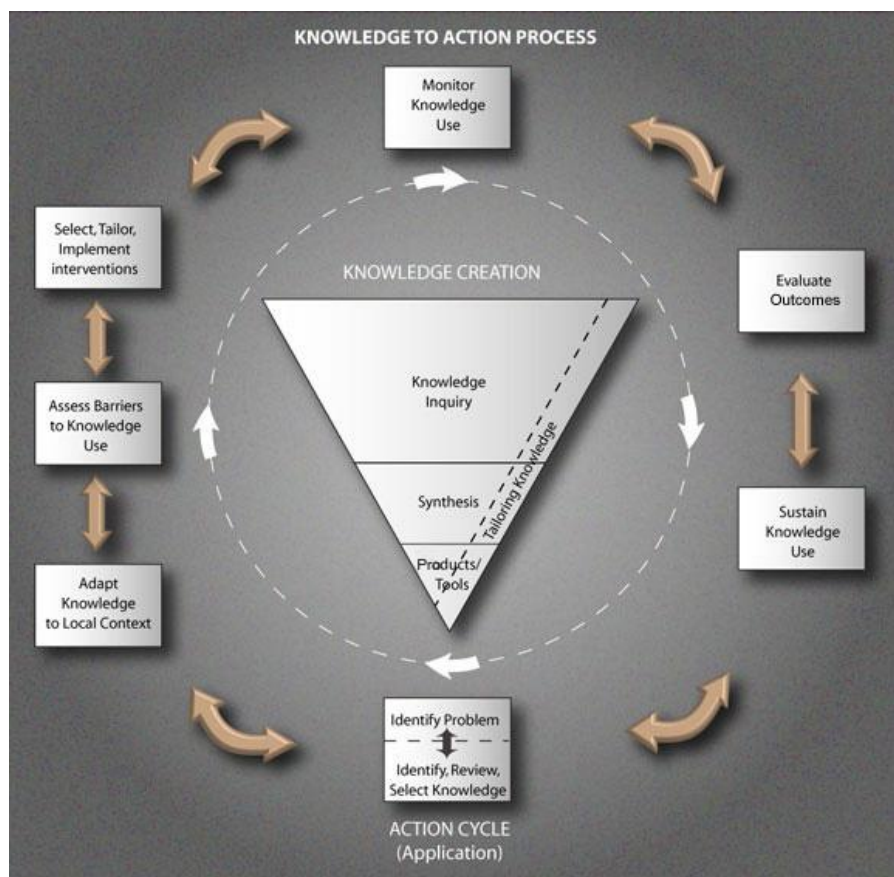
Dissemination and implementation, implementation science, research use, knowledge transfer and uptake/exchange<sup>2</sup>

1. Mc Kibbon KA et al. A cross sectional study of the number and frequency of terms used to refer to knowledge translation in a body of health literature in 2006: a tower of Babel ? Impl Sci. 2010; 5:16.

2. [www.cihr-irsc.gc.ca/e/29418.html](http://www.cihr-irsc.gc.ca/e/29418.html).



# Knowledge to action framework



# Knowledge creation

Knowledge inquiry

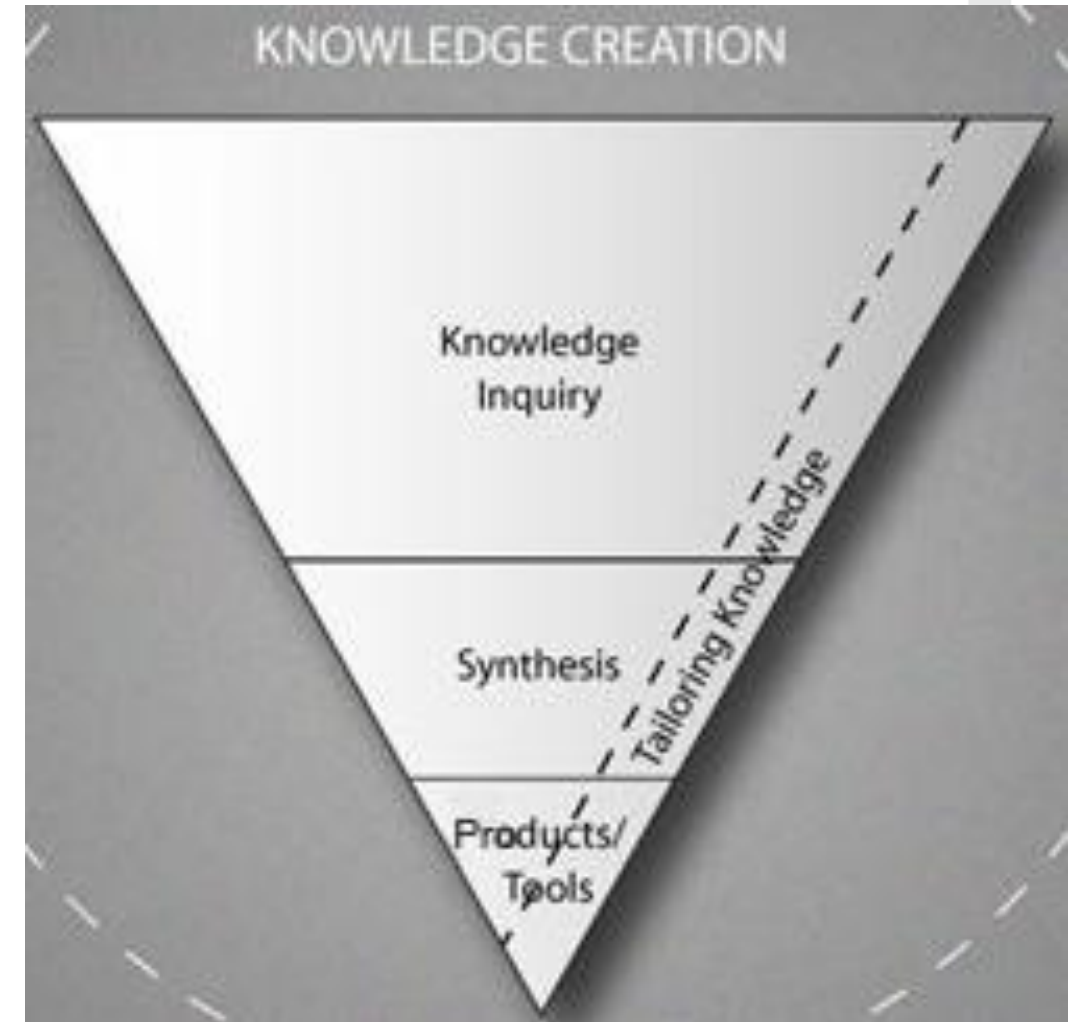
- Primary research studies

Knowledge synthesis

- Secondary research studies (systematic reviews)

Knowledge Tools/products

- Guidelines
- Algorithms
- Messages for end-users



# The Action Cycle (application)

Identify problem; identify, review, select knowledge

Adapt knowledge to local context

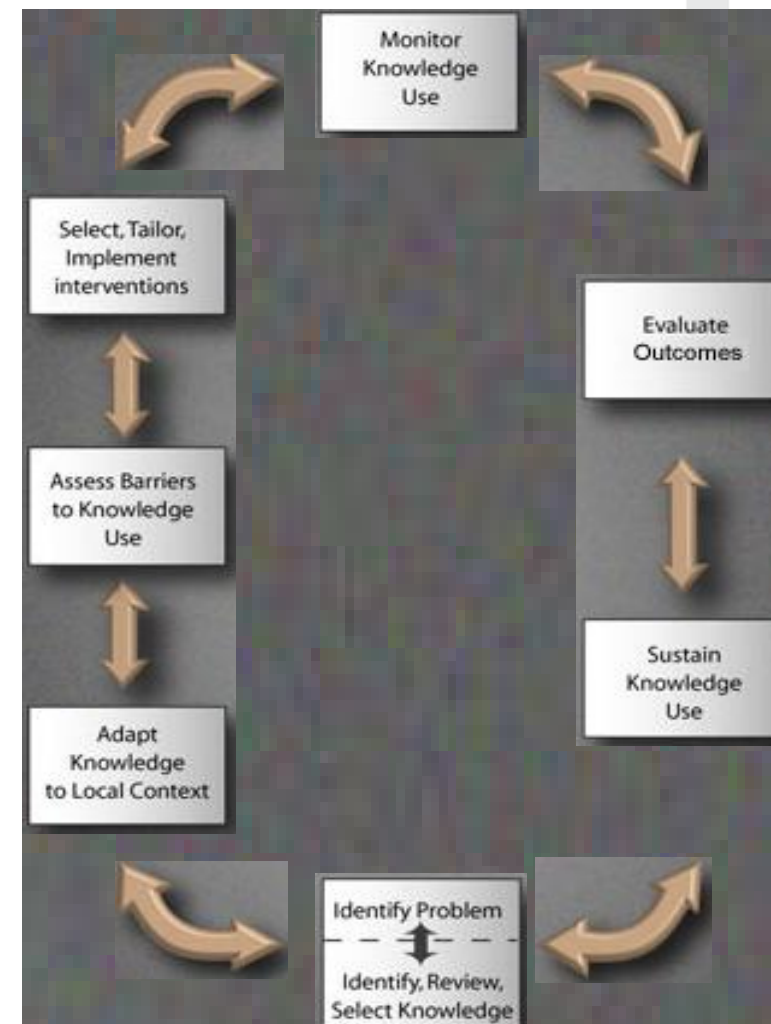
Access barriers – facilitation to knowledge use

Select, tailor, implement interventions

Monitor knowledge use

Evaluate outcomes

Sustain knowledge use





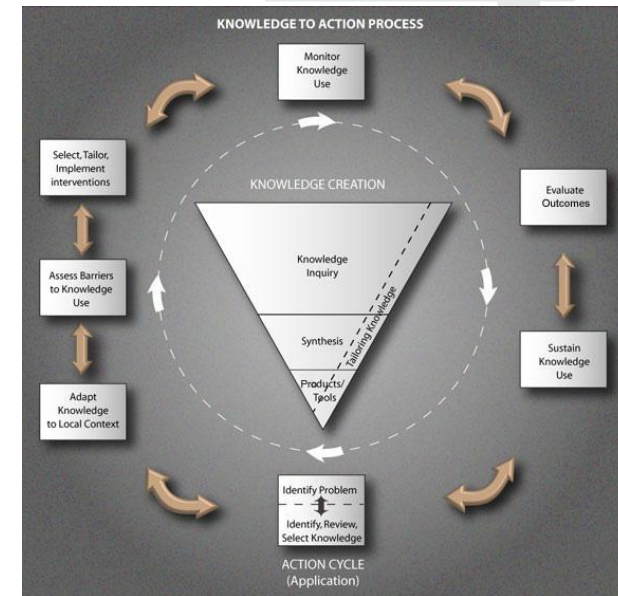
# Human behaviours to be considered

## Repetitive behaviours

- They allow to free the brain for higher level thinking (diagnosis, prognosis)
- Nevertheless, they gradually drive to reduced quality
- Only regular checks allow to identify this loss of quality

## Resistance to change

- Individuals
- Organizations
- Systems



# Implementation of evidence

Micro-level: individuals

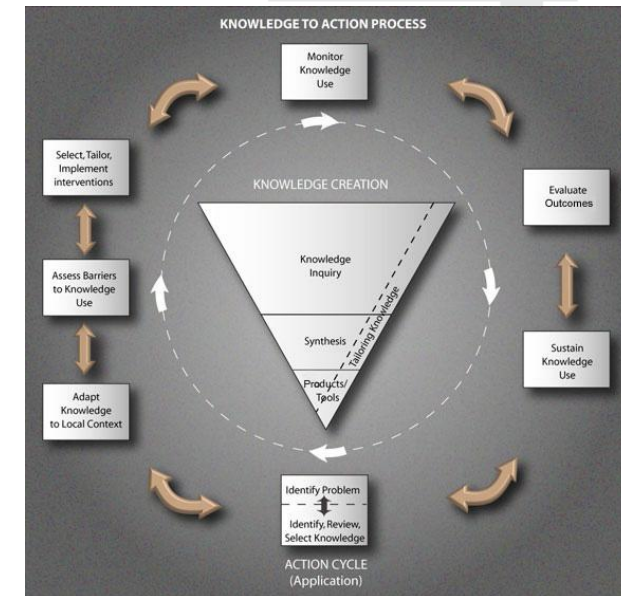
- Surrender to evidence
- Use facilitators (clinical charts)

Meso-level (organizations)

- EBM Continuous Quality Improvement groups
  - Human and financial resources
  - Specific thematic projects on a regular basis

Macro-level (Health Systems)

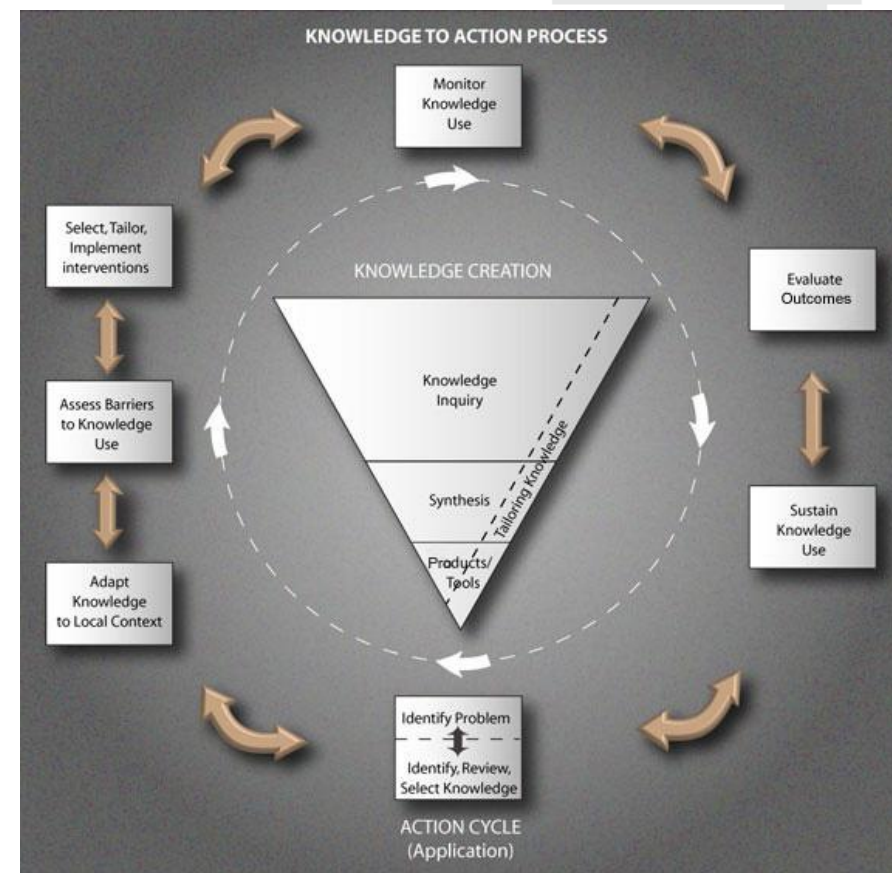
- National guidelines and flow-charts
- Data collection
- Rewarding system



# Take home messages

Adapting to evidence is a real work that requires:

- Acceptance of the evidence
- Reorganization of one's own work (individual or collective)
- Identification and overcoming of barriers
- Need of resources to make the change possible
- Sustainability in time
- And, most of all, willingness to change !



# Action cycle for Cochrane Rehabilitation

Action cycle	Cochrane Rehabilitation action	Product
Identify problem	Check the actual Cochrane Evidence relevant to Rehabilitation Identify and help to solve the problems with evidence of the rehabilitation world	Director: prioritization of future Cochrane Reviews with Cochrane Reviews Groups Methodology Committee: surveys, discussion and position papers
Adapt knowledge to local context	Comment Cochrane Reviews results for: <ul style="list-style-type: none"> <li>• clinicians</li> <li>• students</li> <li>• politicians, to be informed from a rehabilitation perspective</li> </ul>	Communication Committee: social media Publication Committee: Cochrane Corners in scientific journals, e-book
Access barriers – facilitation to knowledge use	Identify and collect all relevant Cochrane Reviews Prepare brief clinical summaries Diffuse the reviews Develop skills and knowledge in end-users Promote Evidence Based Clinical Practice	Reviews Committee: identification of reviews Communication Committee: web-site collection Publication Committee: Cochrane Corners and e-book Education Committee: courses
Select, tailor, implement interventions	Adapt Cochrane material for rehabilitation professionals Improve Cochrane methods to make them relevant to rehabilitation	All Committees as presented above
Monitor knowledge use	Check presence of Cochrane Reviews in Rehabilitation Guidelines and journals	Under development with Cochrane Central
Evaluate outcomes	Development of meaningful outcomes for the actions started	Under development with Cochrane Central
Sustain knowledge use	Support Evidence Based Clinical Practice in Rehabilitation	Education Committee: courses

# Different audiences



## Consumers and the public

Those seeking  
health care, their  
families and carers,  
and the public



## Practitioners

of health care  
including clinicians  
and public health  
practitioners



## Policy-makers & healthcare managers

making decisions  
about health policy  
within all levels of  
management



## Researchers & Research Funders

who need  
information  
regarding important  
gaps in the evidence

## Cochrane Knowledge Translation Strategy

April 2017



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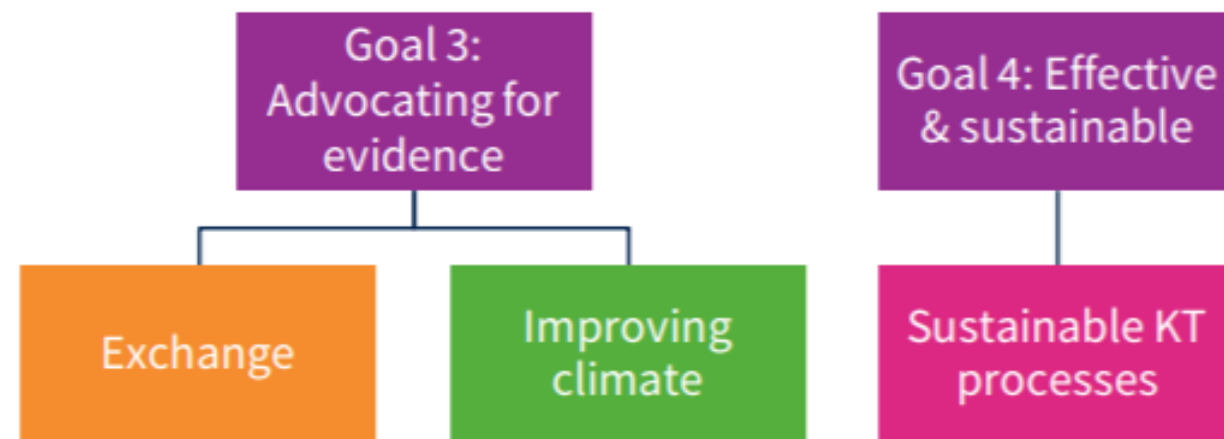
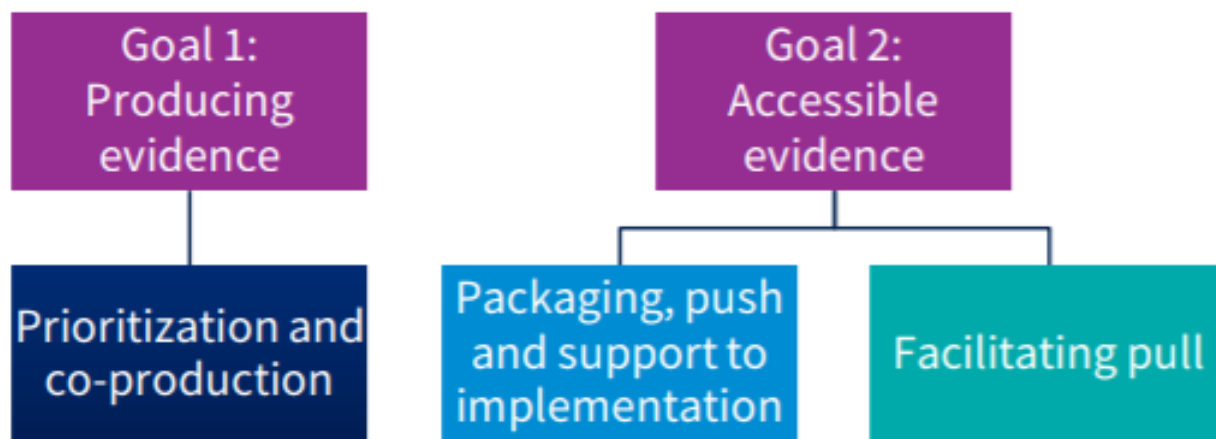


## Cochrane Knowledge Translation Strategy

April 2017

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# Cochrane KT Strategy



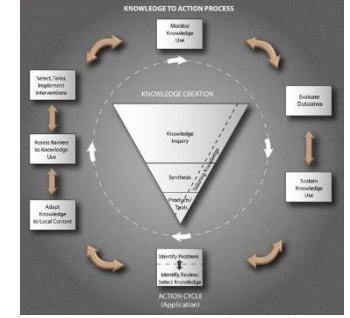
# Identify problem

## Cochrane Rehabilitation action

- Check the actual Cochrane Evidence relevant to Rehabilitation
- Identify and help to solve the problems with evidence of the rehabilitation world

## Product

- Methodology Committee
  - surveys
  - discussion and position papers



In the rehabilitation world, there is wide-spread diffidence towards Cochrane Reviews and their results. → One aim of Cochrane Rehabilitation is to change this attitude while increasing quantity and quality of Cochrane Reviews in this field.

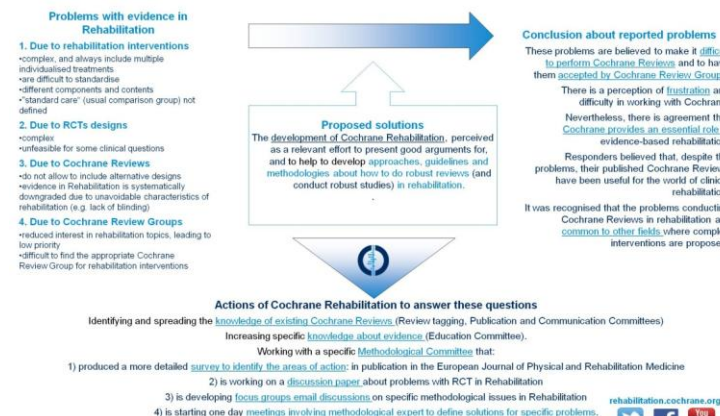
According to the World Health Organization (WHO), Rehabilitation is a set of measures that assist individuals, who experience or are likely to experience disability, to achieve and maintain optimum functioning in interaction with their environments.



Rehabilitation aim: allowing participation through reduction of impairments (body damages) and Activity limitations (impossibility to perform «normal» activities of the human being), and control of environment and personal factors.

### Our study

We performed a survey among Cochrane Reviews authors who joined Cochrane Rehabilitation to understand the problems they reported about evidence



Cochrane Rehabilitation Team: [cochrane.rehabilitation@gmail.com](mailto:cochrane.rehabilitation@gmail.com)



# Methodology Committee

A think tank to help solving problems of EBM in PRM

Already done:

- Two surveys on EBM problems in Rehabilitation
- One poster at the Global Evidence Summit
- First Cochrane Rehabilitation Corner paper in the European Journal of Physical and Rehabilitation Medicine (October 2017)

Yearly journal special issues and/or sections on methodology:

- First one in EJPRM after Catalyst 2-days Workshop before ISPRM Paris

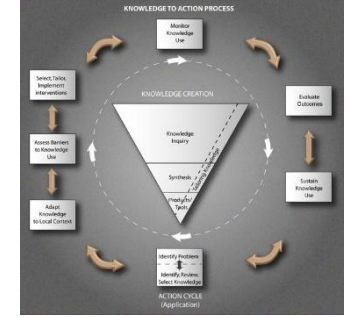
# Adapt knowledge to local context

## Cochrane Rehabilitation action

- Comment Cochrane Reviews results for:
  - clinicians
  - students
  - politicians, to be informed from a rehabilitation perspective

## Product

- Communication Committee
  - social media
- Publication Committee
  - Cochrane Corners in scientific journals
  - e-book





# Communication Committee

Web-site: 4727 visits in 2017

Newsletter: 361 subscribers

Twitter: 715 followers

Facebook: 1292 likes

U-tube channel: 28 videos with 58 visualizations on average  
4 blogshots (1 per week since january 2018)

Trusted evidence. Informed decisions. **Better health.**

Issue 1 | June 2017

Cochrane Rehabilitation was formally approved on October 22<sup>nd</sup>, 2016 and  
officially launched on December 16<sup>th</sup>, 2017.



**Cochrane Rehabilitation Perspective**



**Role and function of Cochrane  
Rehabilitation**





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Issue 2 | September 2017

Cochrane Rehabilitation serves as a bridge between all the stakeholders in Rehabilitation and Cochrane.

### The Global Evidence Summit 2017



#### My experience as a PhD student at the Global Evidence Summit 2017

An African proverb says: "If you want to go fast, go alone, if you want to go far, go together".

My name is **Chiara** and last year I started my PhD in Brescia (Italy) on Evidence Based Medicine, dedicating most of my time to Cochrane Rehabilitation. This year I attended for the first time a Global Evidence Summit.



Trusted evidence. Informed decisions. **Better health.**

Issue 3 | December 2017

Cochrane Rehabilitation serves as a bridge between all the stakeholders in Rehabilitation and Cochrane.

### The first year of Cochrane Rehabilitation



[view this email in your browser](#)



Trusted evidence. Informed decisions. **Better health.**

Issue 4 | January 2018

Cochrane Rehabilitation serves as a bridge between the Rehabilitation community and stakeholders and Cochrane

### The Latest Cochrane Systematic Reviews relevant to Rehabilitation



#### Fitness training for cardiorespiratory conditioning after traumatic brain injury

Cardiorespiratory exercise programmes may improve cardiorespiratory fitness in people after traumatic brain injury. It is uncertain whether they improve depression, cognition or fatigue or whether there are any adverse effects.

Cochrane Review: 8 studies with 399 people with traumatic brain injury of any age or severity, comparing cardiorespiratory exercise prescribed alone vs usual care, a non-exercise intervention or no intervention.

Cochrane Review by: Cochrane Injuries

[rehabilitation.cochrane.org](http://rehabilitation.cochrane.org) | [@CochraneRehab](https://twitter.com/CochraneRehab) | [#CochraneEvidence](https://www.facebook.com/CochraneEvidence) <http://bit.ly/2Ez2CQ>

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Segui cochraneblogshots

tumblr.



## Yoga for stroke rehabilitation



**We are uncertain whether yoga improves quality of life, balance, gait, depression, anxiety and disability in stroke survivors. Whether or not yoga has any adverse effects is also uncertain.**

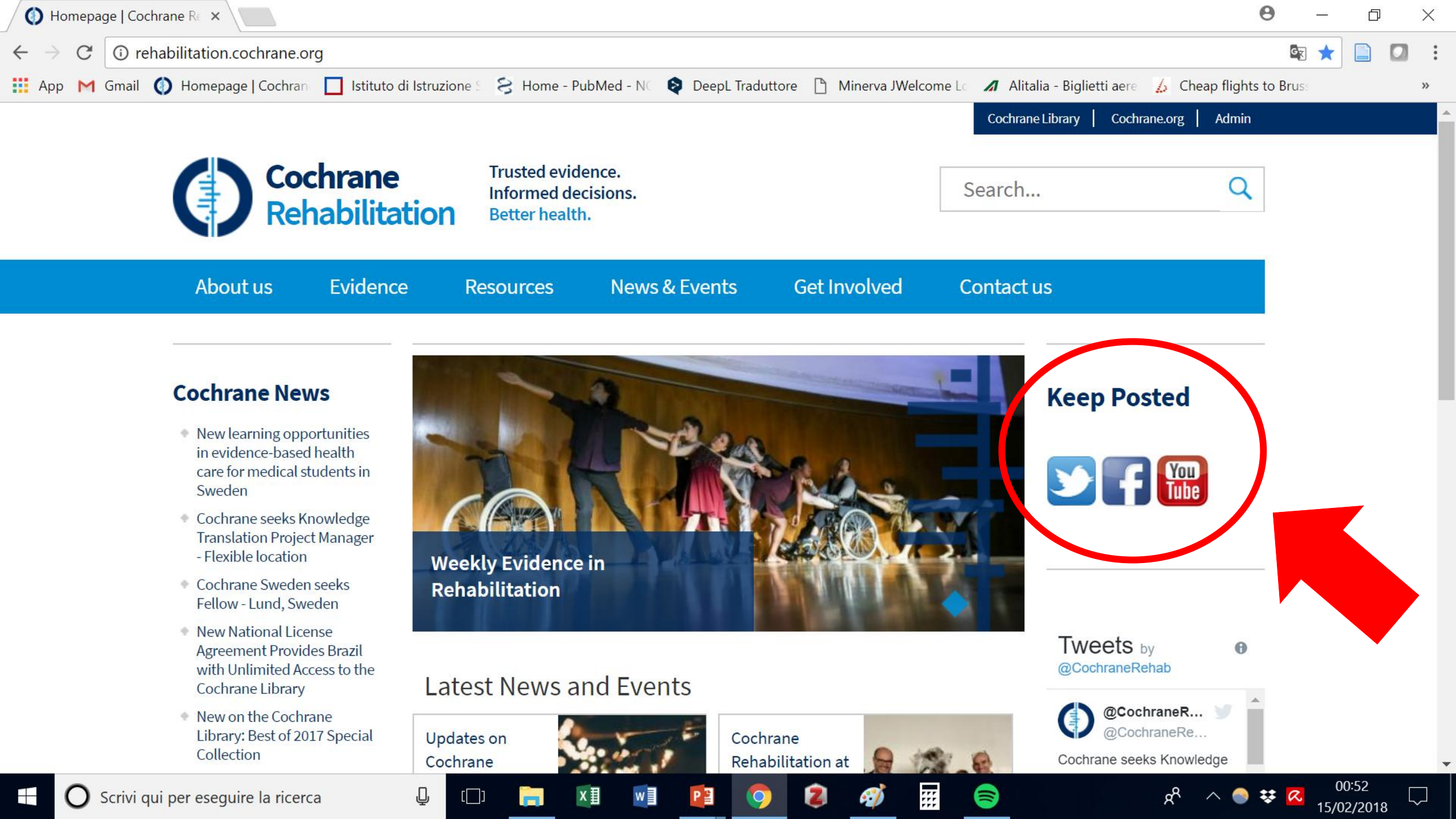


**Cochrane Review; two studies with 72 people comparing yoga vs waiting-list control in adults with stroke.**

**Cochrane Review by: Cochrane Stroke Group**

rehabilitation.cochrane.org | @CochraneRehab | #CochraneEvidence <http://bit.ly/2BR580B>

Yoga for stroke rehabilitation



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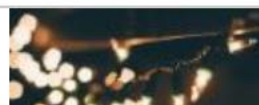
## Cochrane News

- ◆ New learning opportunities in evidence-based health care for medical students in Sweden
- ◆ Cochrane seeks Knowledge Translation Project Manager - Flexible location
- ◆ Cochrane Sweden seeks Fellow - Lund, Sweden
- ◆ New National License Agreement Provides Brazil with Unlimited Access to the Cochrane Library
- ◆ New on the Cochrane Library: Best of 2017 Special Collection



## Latest News and Events

Updates on  
Cochrane



Cochrane  
Rehabilitation at



## Keep Posted



Tweets by  
[@CochraneRehab](#)

 [@CochraneR...](#)  
[@CochraneRe...](#)  
Cochrane seeks Knowledge



## Headquarter of Cochrane Rehabilitation in Italy

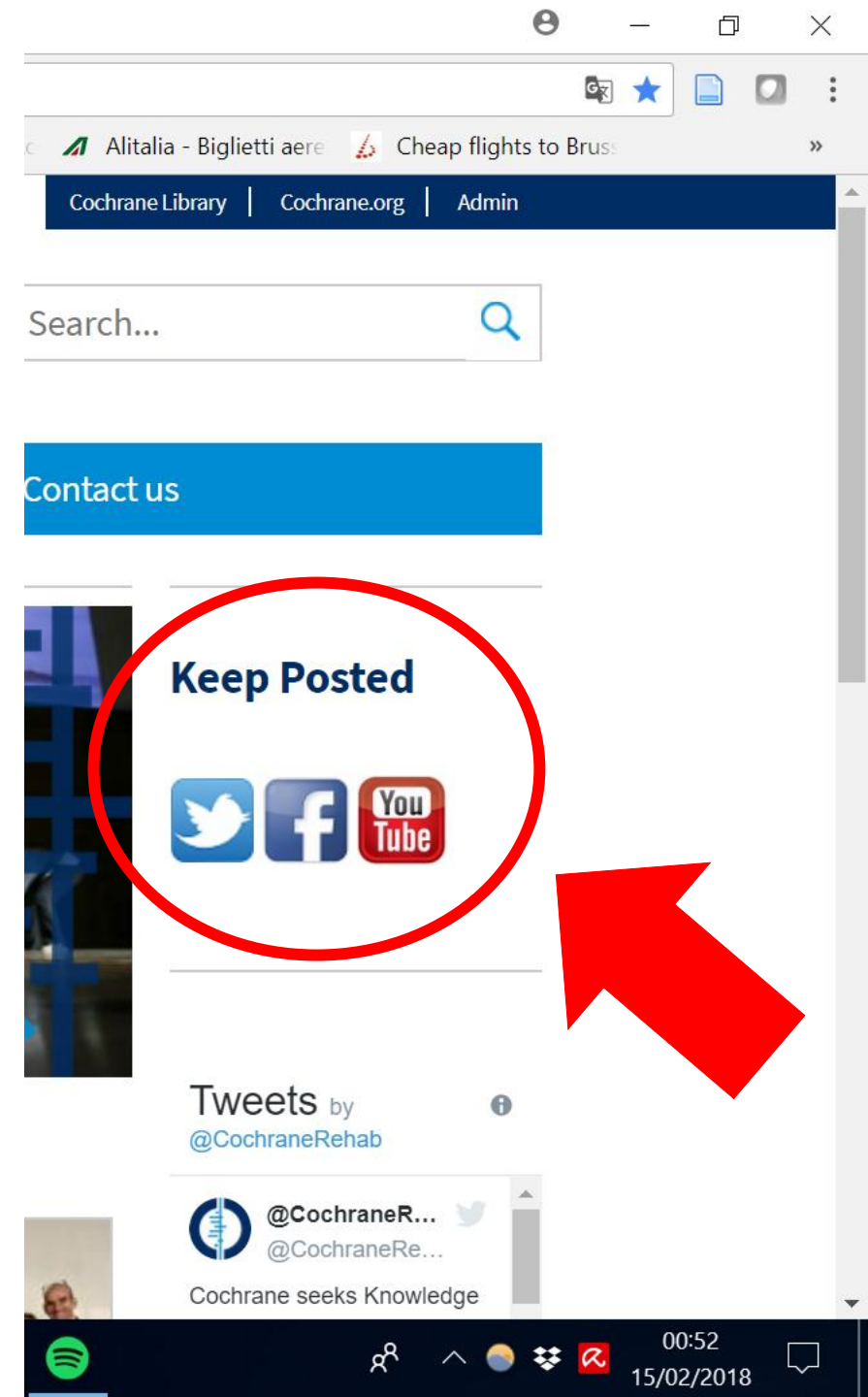


Rehabilitation Centre "E. Spalenza-Don Gnocchi", Largo Paolo VI, Rovato (Brescia), Italy

Email: [cochrane.rehabilitation@gmail.com](mailto:cochrane.rehabilitation@gmail.com)

Twitter: [@CochraneRehab](https://twitter.com/CochraneRehab)

Facebook: [CochraneRehab](https://www.facebook.com/CochraneRehab)





# Cochrane Corners

## EUROPEAN JOURNAL OF PHYSICAL AND REHABILITATION MEDICINE

MEDITERRANEAN JOURNAL  
OF PHYSICAL  
AND REHABILITATION MEDICINE  
formerly  
EUROPA MEDICOPHYSICA

VOLUME 48 - No. 4 - DECEMBER 2012



Official Journal of

Italian Society of Physical and Rehabilitation Medicine (SIMFER)  
European Society of Physical Medicine and Rehabilitation (ESPRM)  
European Union of Medical Specialists - Physical and Rehabilitation Medicine Section (UEMS - PRM)  
Mediterranean Forum of Physical and Rehabilitation Medicine (MFPRM)  
In association with  
International Society of Physical and Rehabilitation Medicine (ISPRM)

EDIZIONI MINERVA MEDICA

## Archives of Physical Medicine and Rehabilitation

THE OFFICIAL JOURNAL OF

### ACRM

AMERICAN CONGRESS OF  
REHABILITATION MEDICINE

Improving lives through  
interdisciplinary rehabilitation research



ELSEVIER

January 2015

Volume 90 • Number 1

## AMERICAN JOURNAL OF Physical Medicine & Rehabilitation

www.ajpm.com



1. The American Journal of Physical Medicine & Rehabilitation is a peer-reviewed journal that publishes original research, clinical reports, and reviews in the field of physical medicine and rehabilitation.

- Lumbosacral Plexopathy and Pelvic Fractures
- Pain in Individuals with Disabilities
- Sphincter Dysynergia in Spinal Cord Injury
- Distal Vibration in Carpal Tunnel Syndrome
- Conservative Treatment of Frozen Shoulder
- Borescopic Models to Teach US-Guided Injections



Official Journal of the

Association of Academic Physiatrists

WESLEY, MINNAPOLIS, LEAN

An Official Journal of The American Medical Association, American Academy of Physical Medicine and Rehabilitation

Wolters Kluwer



# Cochrane Rehabilitation e-book – 1

“Live” e-book available for free in Internet to be constantly updated

Titles, abstracts and plain language summaries

In collaboration with and funded by the European Bodies (Society, Academy, Section and Board)

Importance to PRM:

- inform evidence based practice (relevant to [all European PRM Bodies](#))
- educate postgraduate PRM trainees (relevant to [UEMS-PRM Board](#))
- support political actions toward policymakers, patients' associations and other stakeholders (relevant to [UEMS-PRM Section](#) and [ESPRM](#))
- identify unmet needs of evidence synthesis and activate correct prioritization for future work of Cochrane (relevant to [all European PRM Bodies](#))

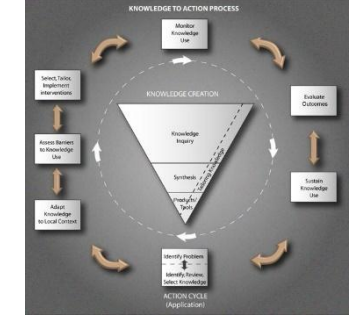


# Cochrane Rehabilitation e-book - 2

Ongoing effort (2 years to start)

- Definition of the **Summary** and the topics to browse the e-book
- Identification of all relevant **Cochrane reviews**
- Production of the summaries for different **target audiences**
  - PRM physicians and other rehabilitation professionals, with ESPRM
  - postgraduate PRM trainees and medical students, with UEMS Board
  - politicians, with UEMS Section
  - consumers, with Cochrane
- **Translation** into different languages
- **Publication**
- Continuous **updating**



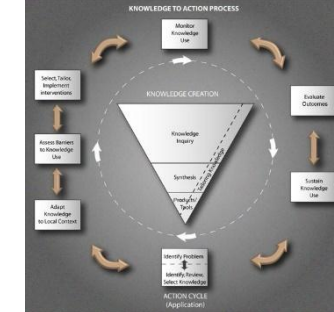


# Access barriers – facilitation to knowledge use

## Cochrane Rehabilitation action

- Identify and collect all relevant Cochrane Reviews
- Prepare brief clinical summaries
- Diffuse the reviews
- Develop skills and knowledge in end-users
- Promote Evidence Based Clinical Practice





# Access barriers – facilitation to knowledge use

## Product

- Reviews Committee
  - identification of reviews
- Communication Committee
  - web-site collection
- Publication Committee
  - Cochrane Corners
  - e-book
- Education Committee
  - courses







# Reviews Committee

Tagging rules document

Tagging database using “Knack” online software

All Cochrane Reviews since 2015 have been double-checked, with single check starting from 2012

Ongoing tagging process to tag all Cochrane database




Evidence | Cochrane Reh

rehabilitation.cochrane.org/evidence

AppGmailHomepage | CochranIstituto di Istruzione SHome - PubMed - NCDeepL TraduttoreMinerva JWelcome LoAlitalia - Biglietti aereCheap flights to Brus

Cochrane LibraryCochrane.orgAdmin



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Evidence

List of Cochrane reviews of rehabilitation interest.

Full list

By Subtopic

New - Updated

(Stage filter not available for Subtopic view)

By subtopic:

▼ Health Conditions (100)

▶ Cardiac (3)

▶ Gynaecology or Urology (1)

▶ Mental Health (1)

▶ Neurological (26)

▶ Older Adults (>65 years) (16)

▶ Oncology (3)

▶ Orthopaedic or musculoskeletal (incl. pain conditions) (29)

▶ Other (5)

▶ Paediatrics (<18 years) (11)

Scrivi qui per eseguire la ricerca

16:19

15/02/2018

2

## Scientific contributions

1. 10/2016 Seoul Cochran Colloquium: Presentation & Poster
2. 2/2017 Geneva WHO “Rehabilitation 2030: a call for action”: Participation as a rehabilitation stakeholder
3. 5/2017 Buenos Aires International Society of PRM: Keynote lecture
4. 9/2017 Cape Town Global Evidence Summit: 3 posters
5. 2/2018 Atlanta American Academy of Physiatry: DeLisa Lecture
6. 4/2018 Vilnius European Society of PRM: Lecture



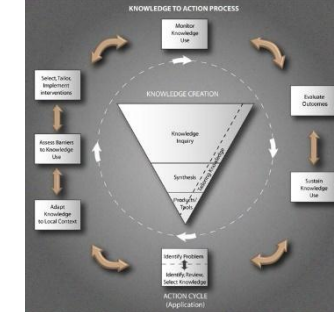
# Select, tailor, implement interventions

## Cochrane Rehabilitation action

- Adapt Cochrane material for rehabilitation professionals
- Improve Cochrane methods to make them relevant to rehabilitation

## Product

- All Committees as presented above
- Translations
- Representatives



# Contributors

Cochrane Rehabilitation community

- 256 people from 54 countries

Specific tasks defined by Committees (calls)

- Review selection
- Surveys
- Translation of web-site and Newsletter
- Link with National Societies and Cochrane Centres
- Treasurer position





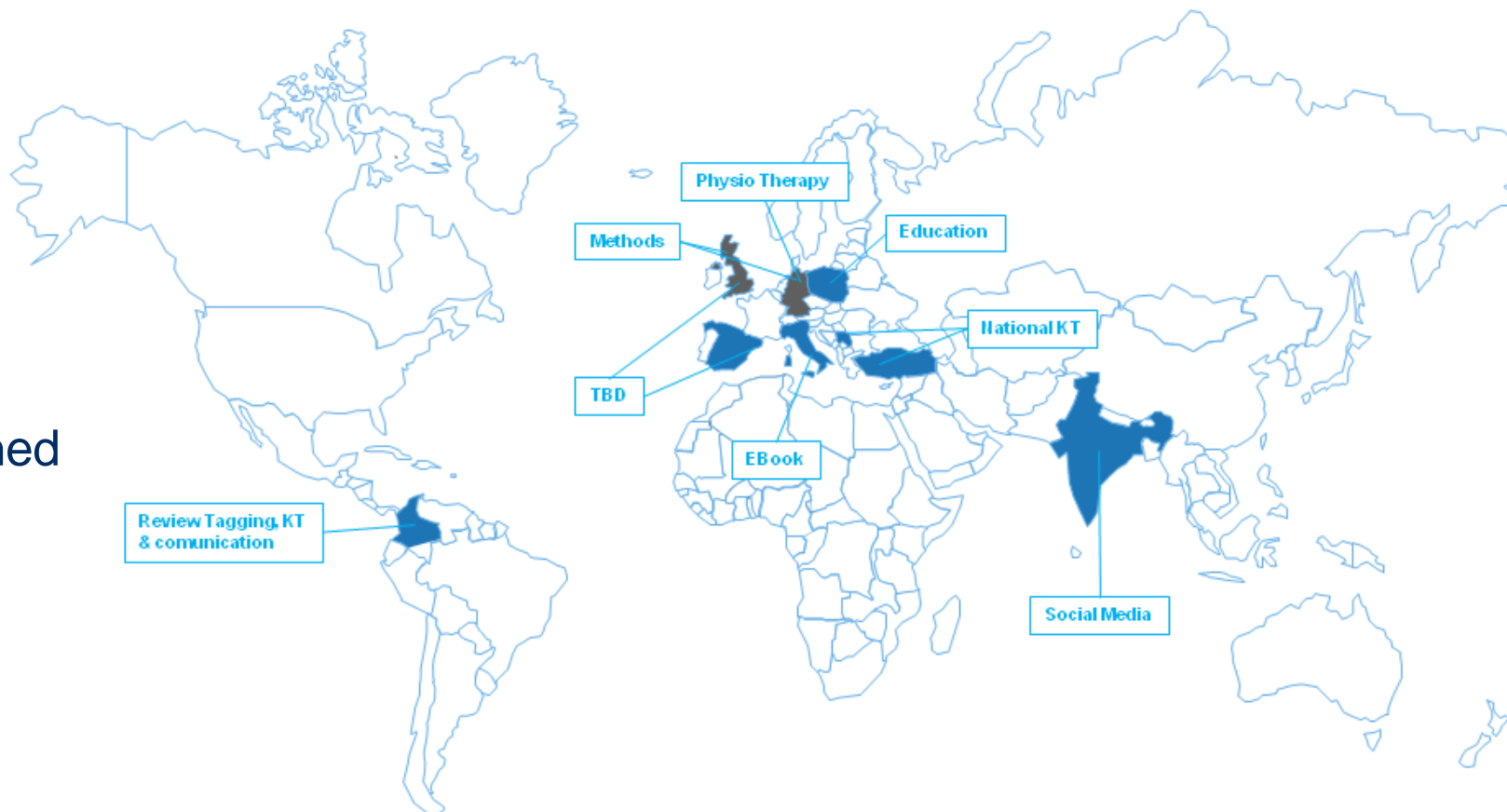
# Partners

## Partners

- 6 funding partners
- 3 partners in kind established
- 8 partners in kind to be established

## Agreed big actions/tasks

- E-book
- National actions
- Methods
- Social media and communication
- Rehabilitation Professionals



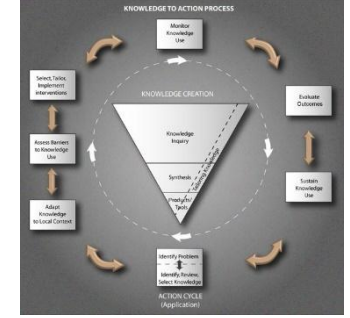
# Monitor knowledge use & Evaluate outcomes

## Cochrane Rehabilitation action

- Check presence of Cochrane Reviews in Rehabilitation Guidelines and journals
- Development of meaningful outcomes for the actions started

## Product

- Under development with Cochrane Central



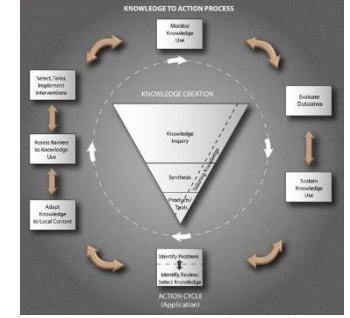
# Sustain knowledge use

## Cochrane Rehabilitation action

- Support Evidence Based Clinical Practice in Rehabilitation

## Product

- Education Committee
  - courses





# Education Committee

## Workshops

- General introduction: what is Cochrane and Cochrane Rehabilitation
- Cochrane Rehabilitation results
- Other EBM material

## Courses on EBM and Cochrane

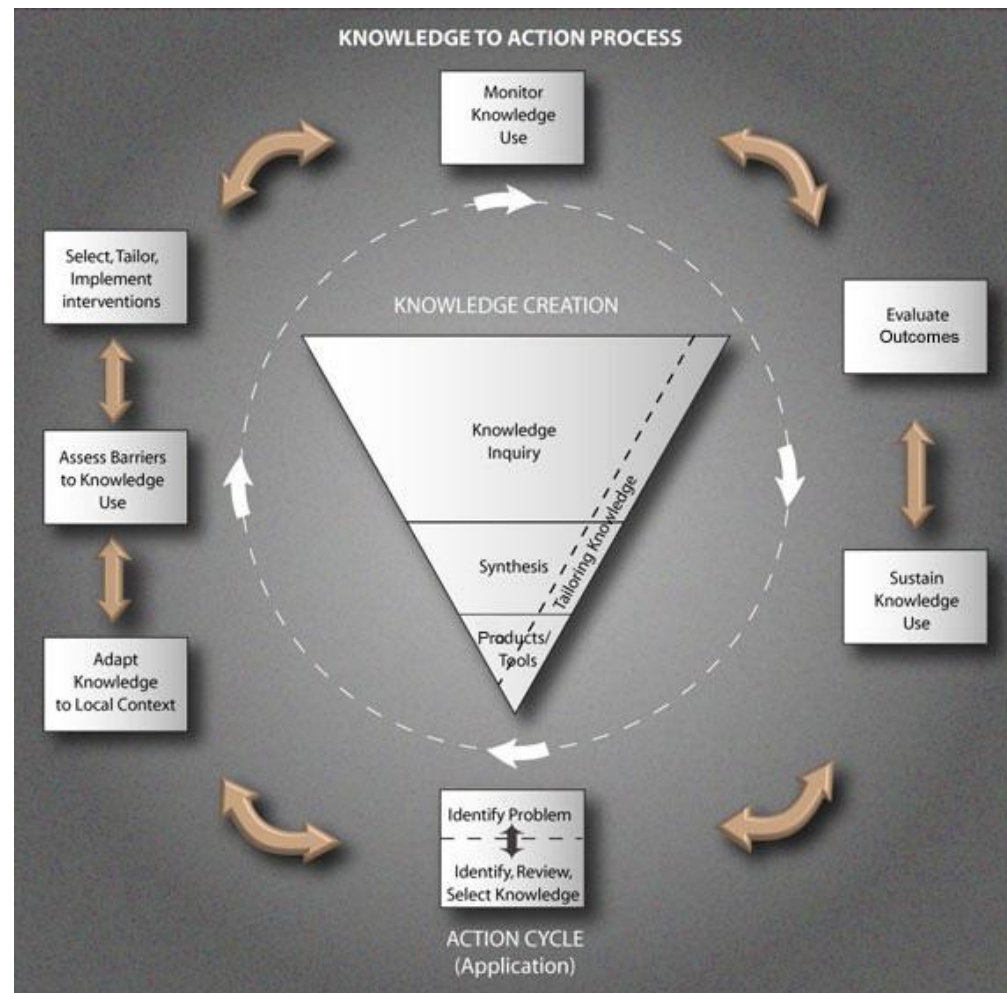
# Workshops & educational sessions

1. 3/2017 Frankfurt Reha-Kolloquium 2017
2. 5/2017 Buenos Aires International Society of PRM
3. 9/2017 Cape Town Global Evidence Summit
4. 11/2017 Malta Mediterranean Forum of PRM
5. 11/2017 Maastricht Baltic North Sea Forum of PRM
6. 2/2018 Atlanta American Academy Physiatry
7. 4/2018 Vilnius European Society of PRM
8. 7/2018 Paris International Society of PRM





# Take home messages



# Thank you

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[@ProfNegrini](#)

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