

# ***The WHO's International Classification of Functioning, Disability and Health (the ICF): Implications for the rehabilitation of persons with hearing loss***

**Jean-Pierre Gagné, Ph.D.**

**École d'orthophonie et d'audiologie**

**Université de Montréal**

**Jean-Pierre.Gagne@umontreal.ca**

# Presentation Outline

1. Medical vs. rehabilitative approaches
2. The WHO's classification system
3. AR is a process
4. A problem-solving approach to AR
5. Goal setting
6. The process of change

# 1. Medical vs. rehabilitative approaches

# Medical approach

In medical (biological) models of health the goal is to cure

Curative approaches to health were applied to AR (aided audiogram, amplification in general)

# Typical AR programs in many settings

- Hearing assessment / Medical evaluation
- Detailed audiologic assessment for hearing aid
- Hearing aid prescription
- Hearing aid fitting
- Basic instructions on care and maintenance of HA
- One month trial period
- One month post-fitting evaluation
- Course (4-8 weeks/sessions) on hearing management and communication strategies

# Typical outcome

## Successful outcome

- Good hearing aid fitting (electroacoustic characteristics)
- Motivated patient
- Good ability to adapt to ‘new hearing’
- Appropriate expectations
- Wears HA for a period of time then seeks other help (assistive devices, speechreading, communication strategies, assertive training)

# Typical outcome

## Unsuccessful outcome

- Not happy with HA
- Physical and/or electro-acoustic manipulation of HA
- Teach about care and management of HA
- Program re: adapting to wearing HA
- Modify the patient's expectations
- HA stays in drawer syndrome

# Traditional approach to the treatment for hearing loss

- Explicitly (or implicitly) the goal of treatment is to cure hearing
- The ideal outcome would be to make hearing normal
- HA is the prescription drug (it restores hearing)
- If at first not successful: modify the prescription (i.e., tweak the HA)
- Teach patient how to use the hearing aid
- Eventually... Give up!



# Traditional approach to the treatment for hearing loss

- Over the years there has been much dissatisfaction (and frustration) related to this approach to rehabilitation services
- Not good for Audiology and AR (the value of services is evaluated on the basis of whether or not the client complies with the treatment)
- The frustration exists in all rehab. sciences
  - Speech-language pathology : aphasia
  - PT: permanent physical disorders like amputation or arthritis
  - Neuro-psychology: traumatic head injury

# Medical approach

Medical/curative models of health do not apply to rehabilitative sciences

Hearing loss is a chronic disorder... it cannot be 'cured'

The goal of AR programs is *to overcome the deleterious effects of hearing loss* (to help the person adapt to – live with- their disability)

## 2. The WHO classification systems

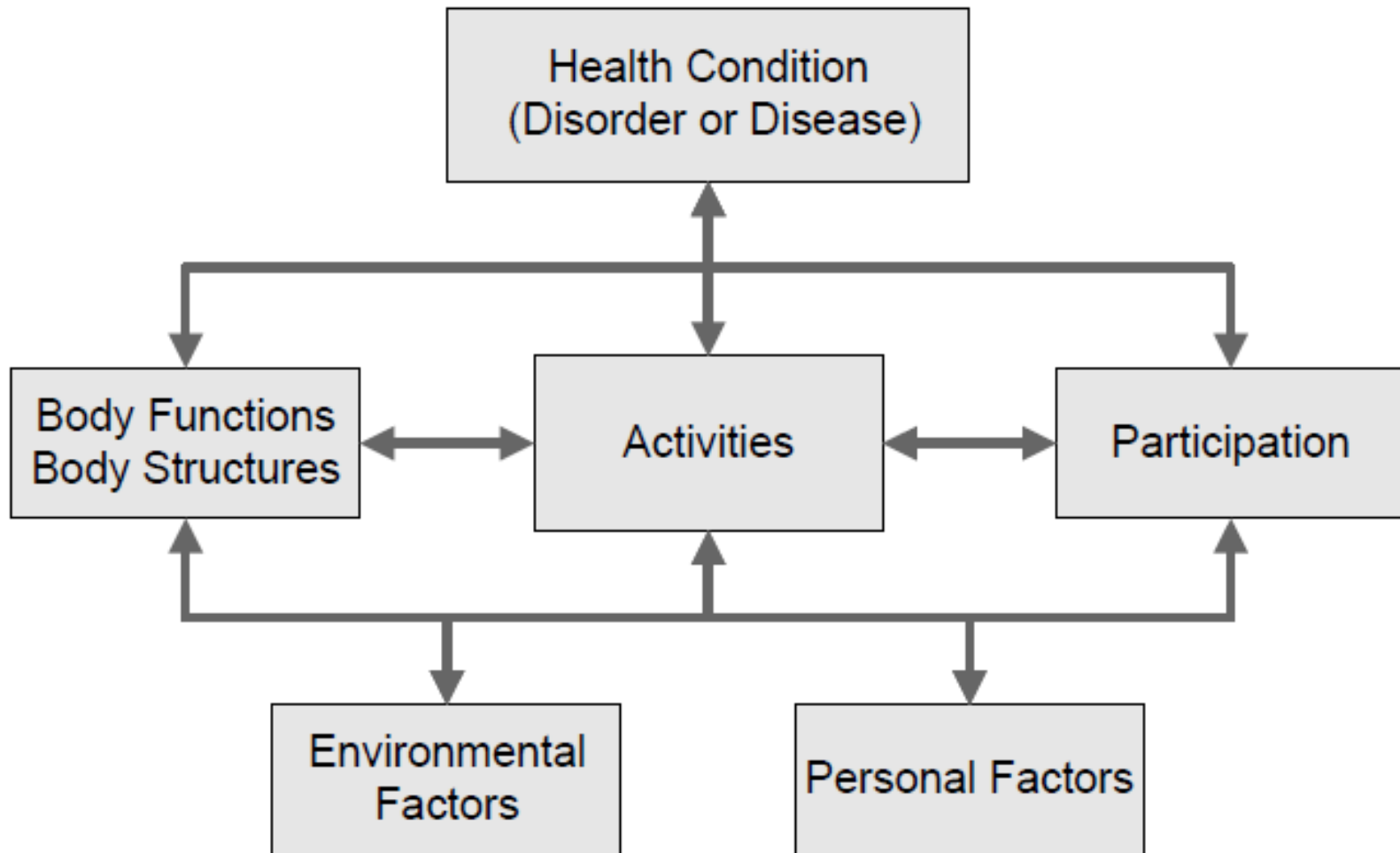
# International Classification of Impairments, Disabilities and Handicap – ICIDH (WHO, 1980)



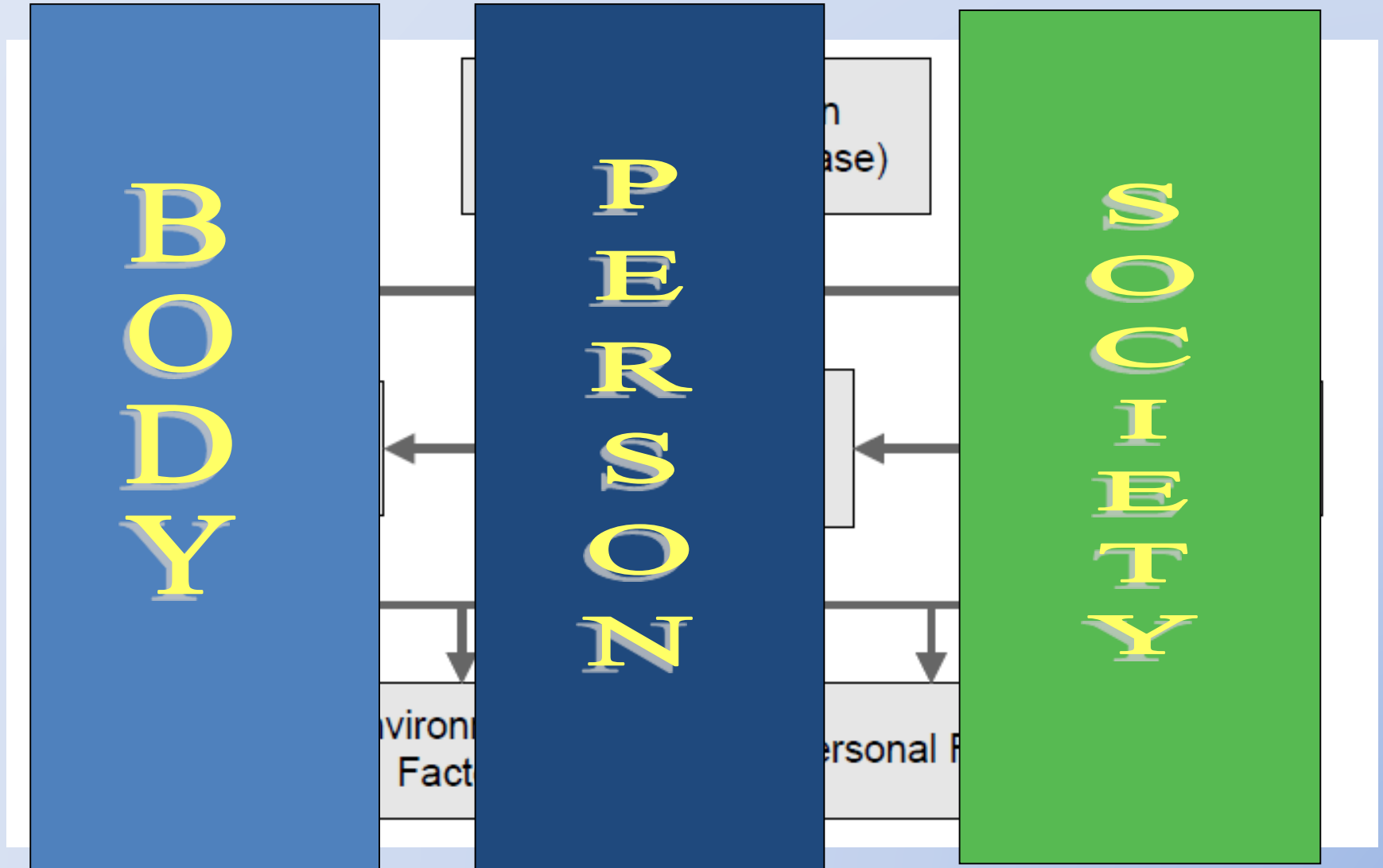
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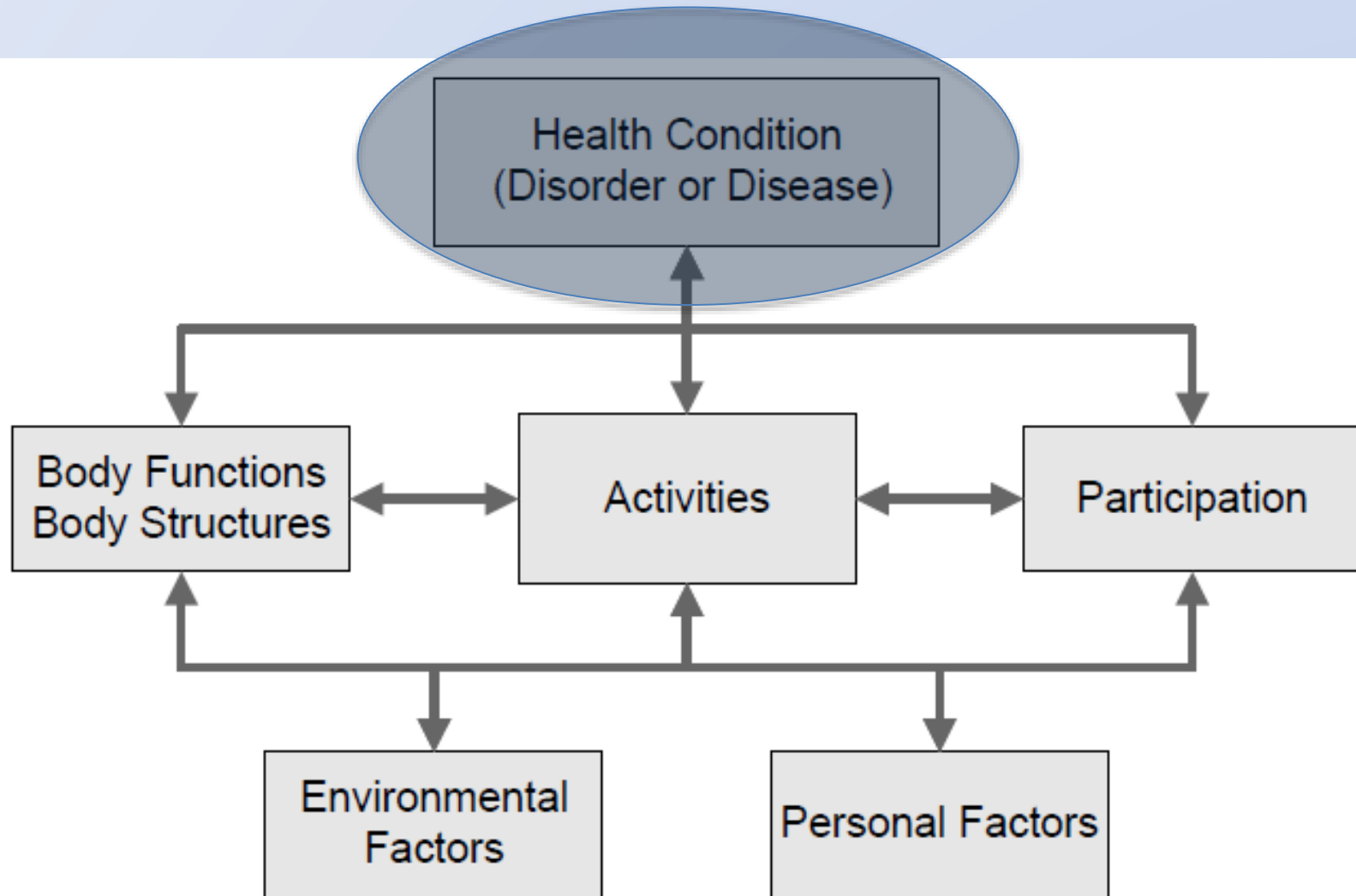
# International Classification of Functioning, Disability and Health (ICF: WHO, 2001)



# ICF: A bio-psycho-social approach to health

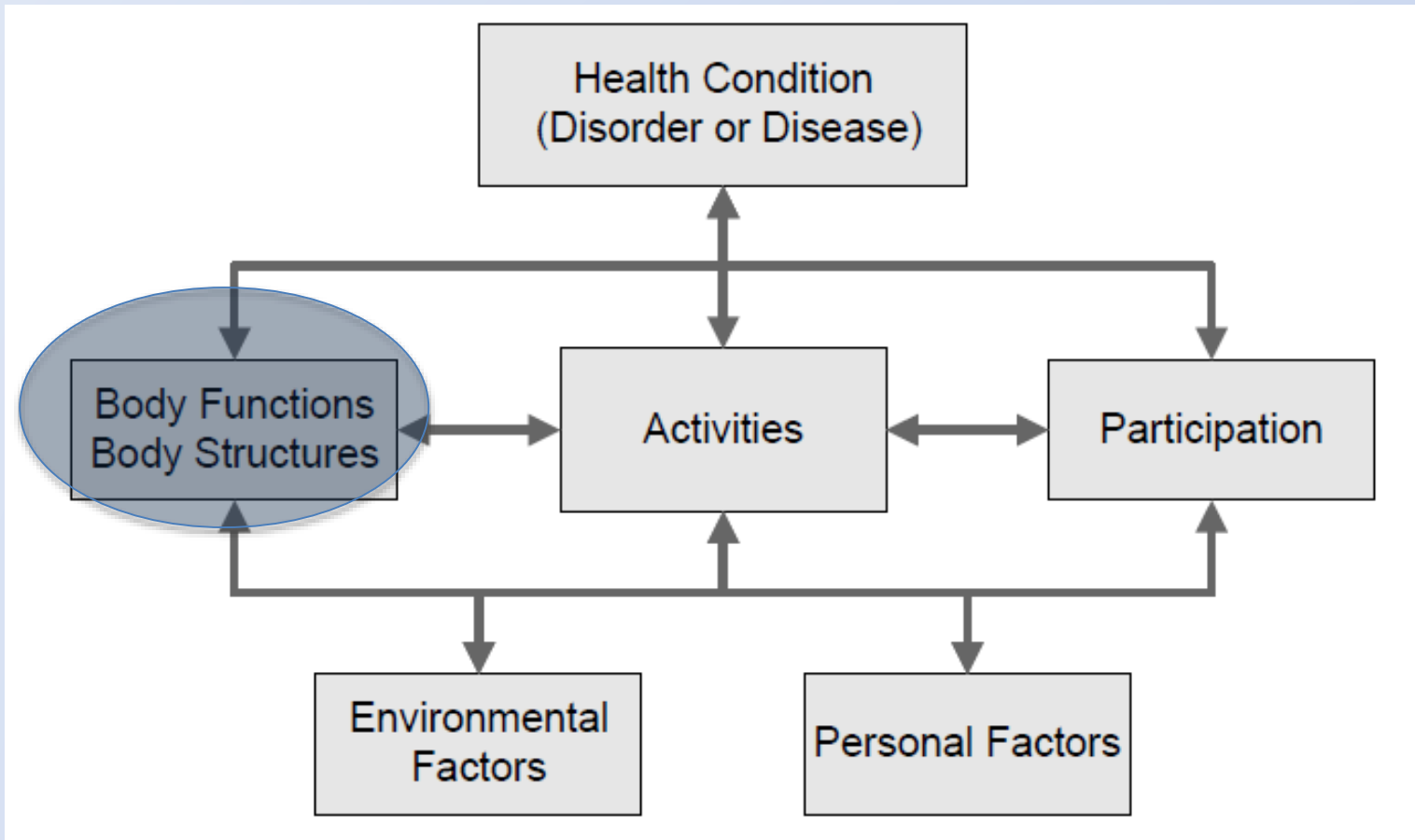


# International Classification of Functioning, Disability and Health (ICF: WHO, 2001)





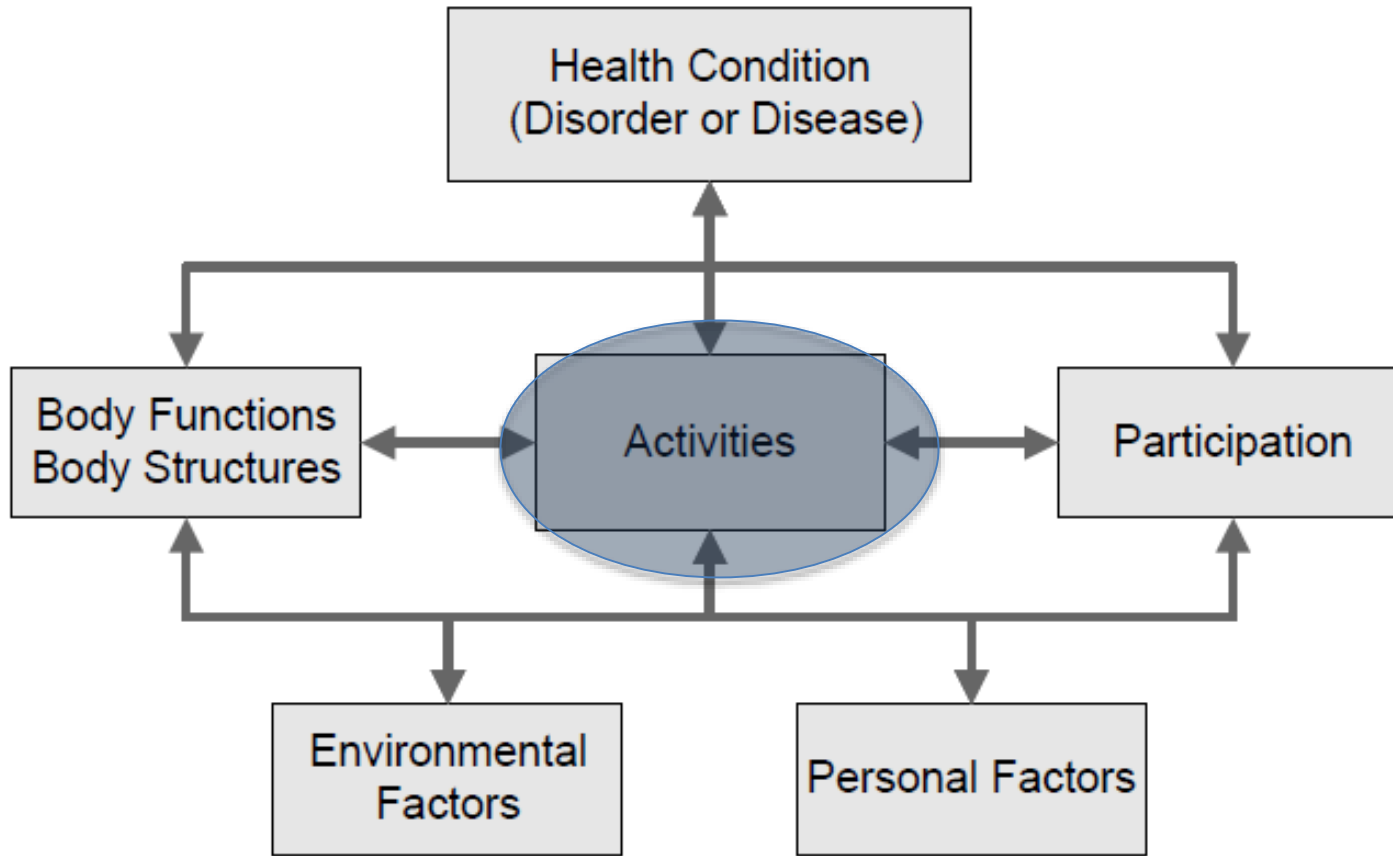
# ICF: WHO, 2001



**Body functions** are physiological functions of body systems, including psychological functions

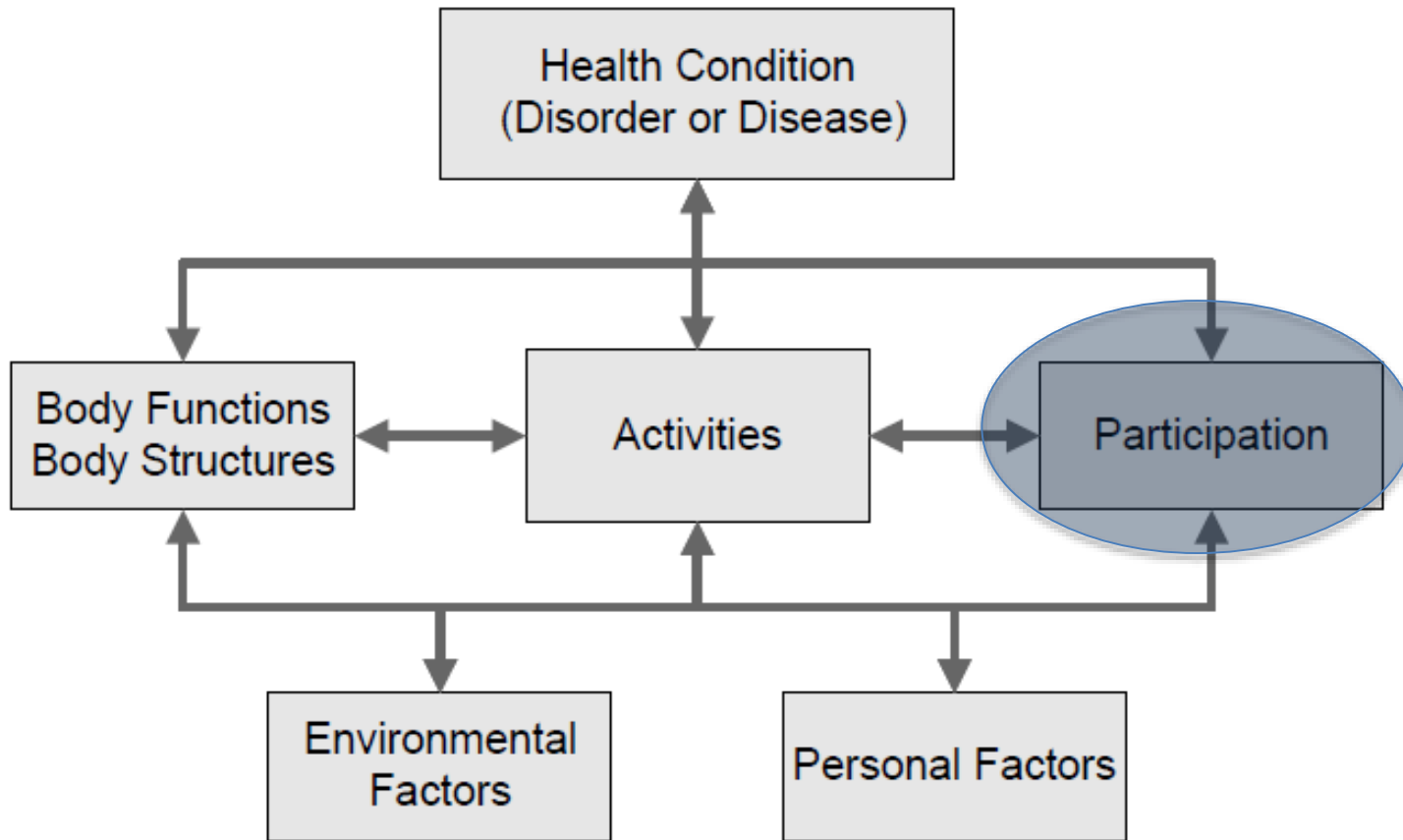
**Body structures** are anatomical parts of the body, such as organs, limbs and their components

# ICF: WHO, 2001



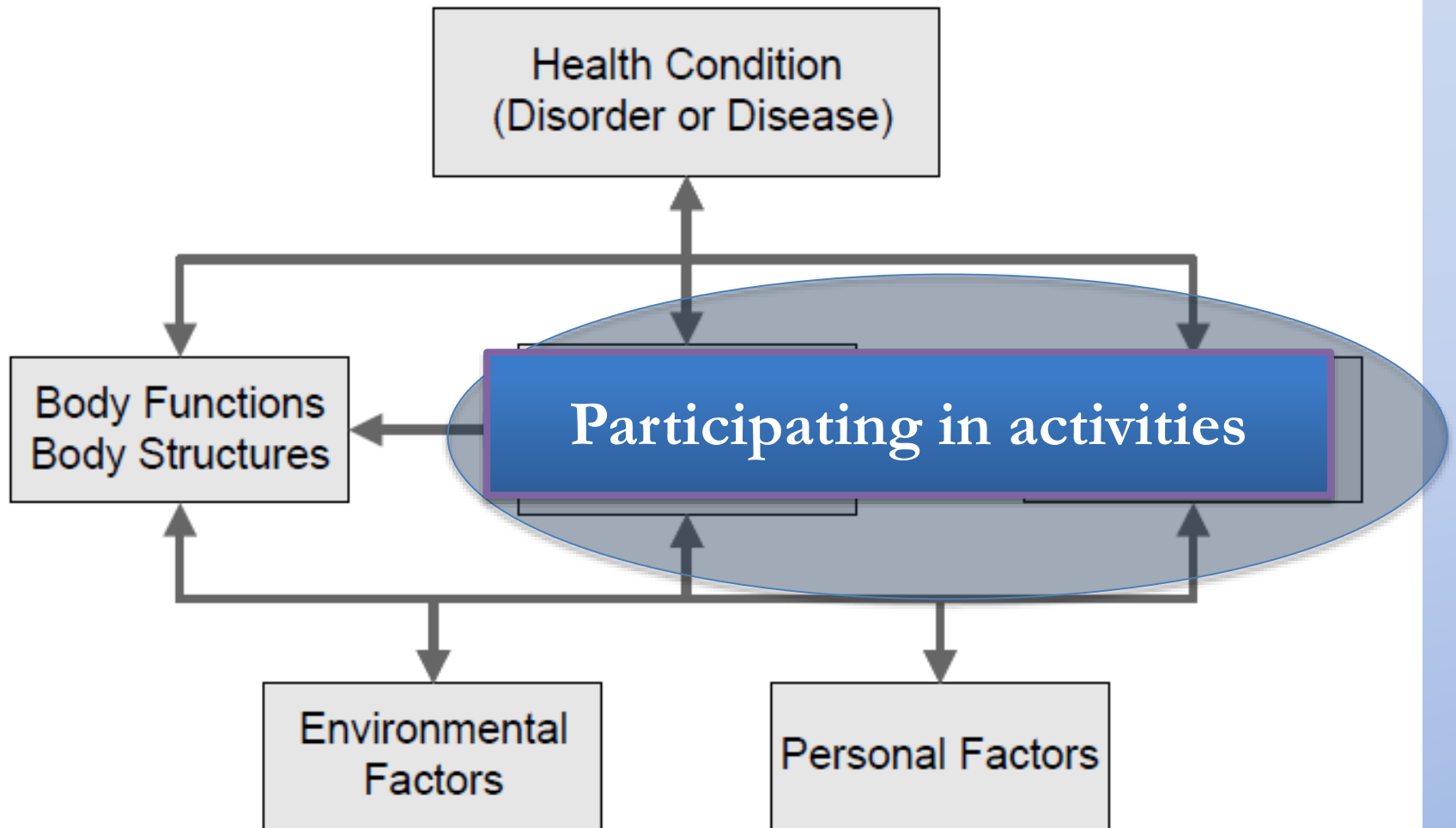
**Activity** is the execution of a task or action by an individual. It represents the individual perspective of functioning.

# ICF: WHO, 2001

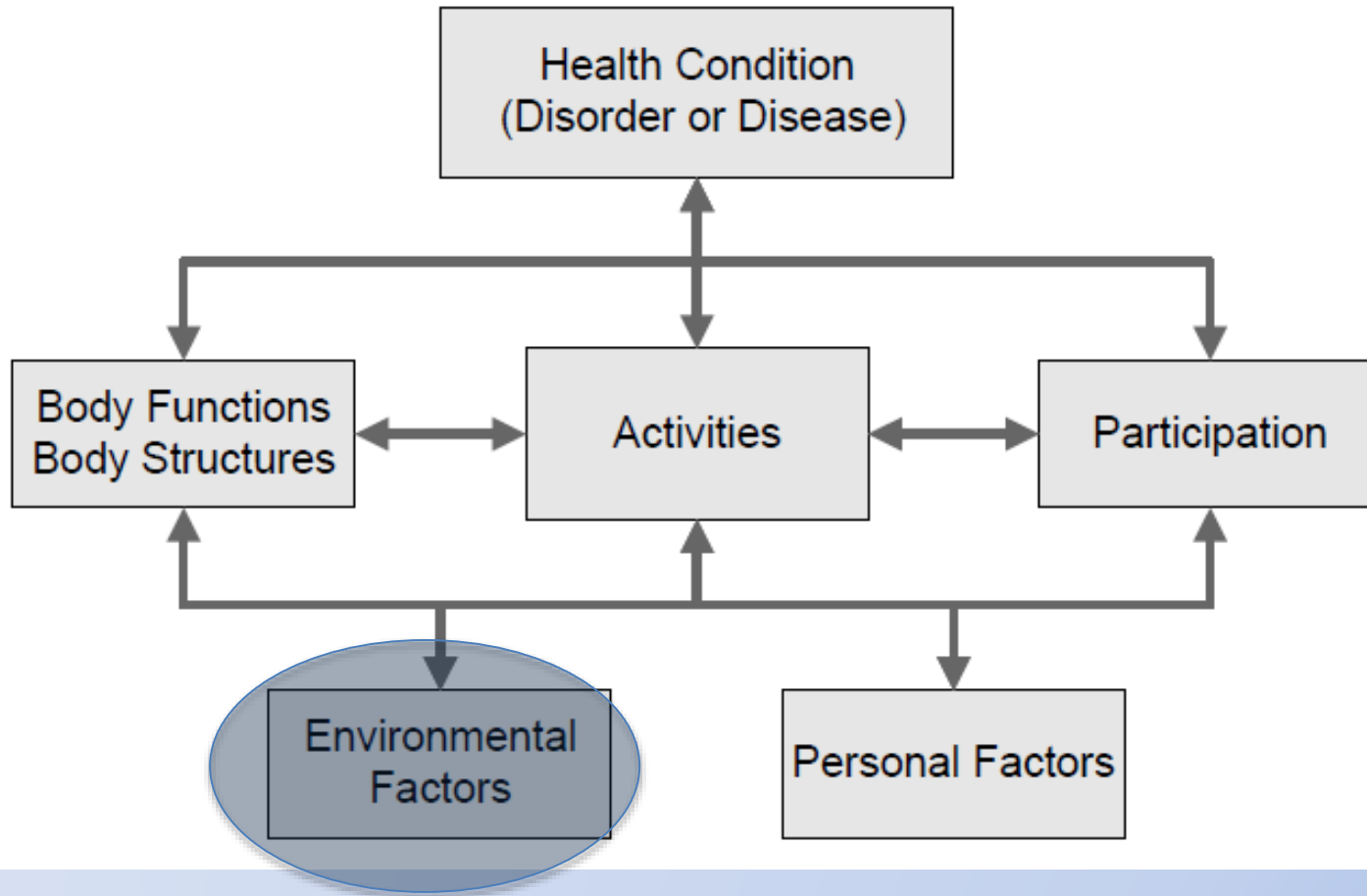


**Participation** is involvement in a life situation. It represents the societal perspective of functioning.

# International Classification of Functioning, Disability and Health (ICF: WHO, 2001)



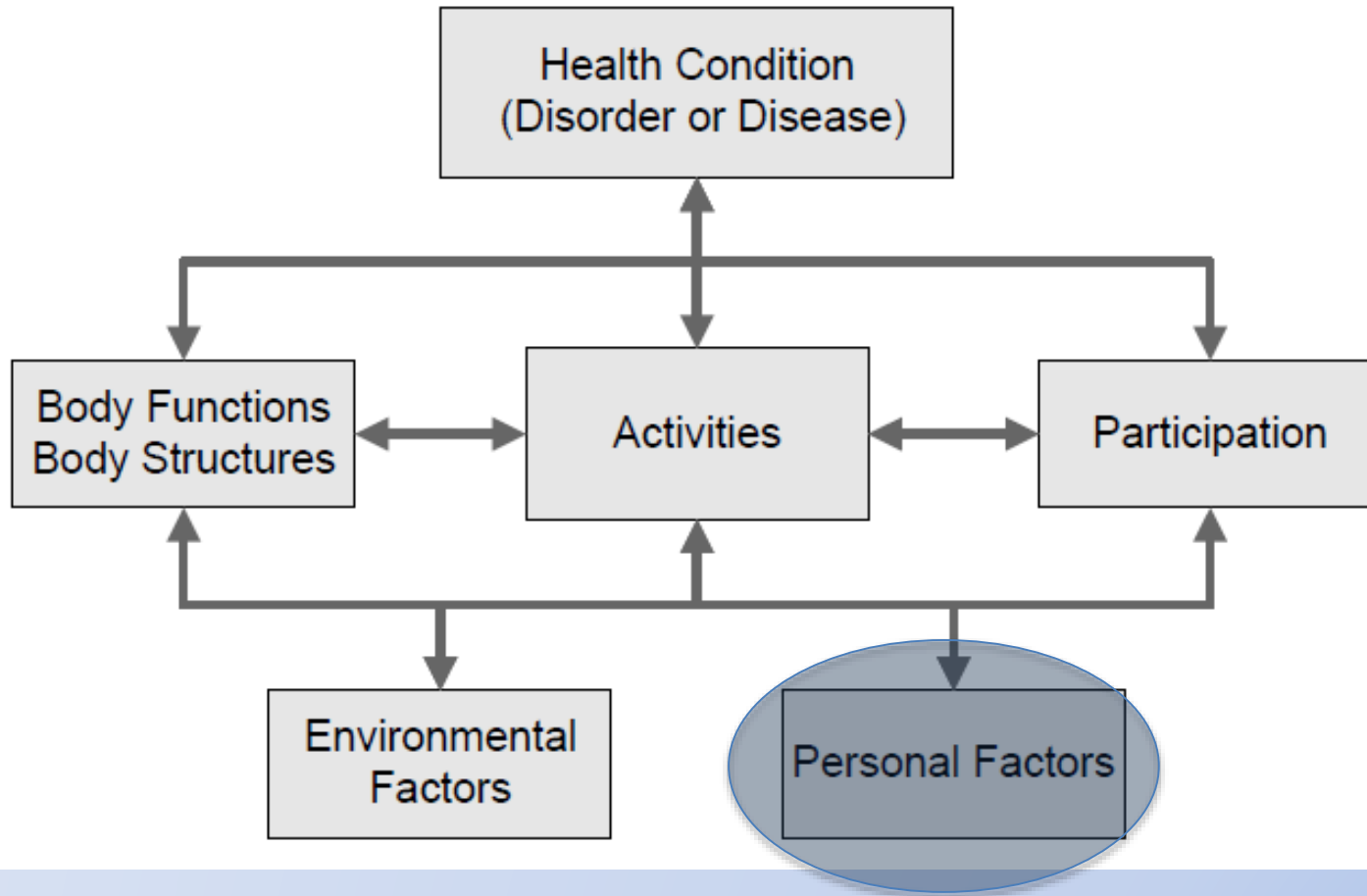
# ICF: WHO, 2001



**Environmental factors** make up the physical, social and attitudinal environment in which people live and conduct their lives

**Environmental factors** are external to individuals and can have positive (facilitator) or negative (barrier) influence on the individual

# ICF: WHO, 2001



e.g. gender, age, race, fitness, lifestyle, habits, social background, other health conditions ...

# ICF: WHO, 2001

The ICF has two parts, each with two components:

## **Part 1: Functioning and Disability**

- (a) Body Functions and Structures
- (b) Activities and Participation

## **Part 2: Contextual factors**

- (a) Environmental Factors
- (b) Personal Factors

One's health condition is determined and described by the complex interactions that may exist among these different domains.

# ICF: WHO, 2001

- Endorsed in 2001 by 191 nations including the USA
- Large international and multidisciplinary participation in the development of the ICF
- Provides a standard language and framework for the description of health and health related issues across rehabilitation disciplines
- Can be applied to research as well as clinical rehabilitation activities



# **Implications of ICF to Audiological Rehabilitation**

A definition of AR using nomenclature that is consistent with the ICF (WHO, 2001):

The goal of AR is to restore or optimize participation in activities considered limitative by persons who have a hearing impairment and/or by other individuals who partake in activities that include persons with a hearing impairment.

(Gagné, Ear & Hearing:2000)

# Implications

- It places the focus of AR on helping people participate in activities rather than on focusing on impairments and disabilities (much more positive/optimistic approach)
- It makes it possible to contemplate treatment programs that do not focus on the impairment (e.g., the modifying the environment)

# Implications ...:

The goals of AR are very concrete/tangible:

- **Participation** in real-life, every day activities that judged important (relevant) by the persons who participate in the intervention program (i.e., not wearing HA; not Word-recognition scores)

It provides specific guidelines that can be used to:

- set goals for AR
- evaluate outcome of intervention

# Implications ...:

- It recognizes that there is a very personal (subjective) dimension to what constitutes activity limitations / participation restrictions – (the advantages of a shared decision making approach)
- The goals of AR may be defined differently by people with similar hearing loss (this can be accessed by the client's narrative)

## Each activity (limitation) is unique

- Impairment
- Activity
- Personal factors (of all the persons involved in the activity)
- Environmental factors (physical and social)

e.g.: watching television, telephone, playing cards, going to religious services...

# Implications ...:

- It specifies that persons who do not have a hearing impairment may be candidates for AR intervention.

That is, the participation of an individual -or individuals- with hearing impairment in an activity may result in activity limitations and/or participation restrictions for persons with normal hearing involved in that activity (e.g., family members, friends, colleagues)

# Implications ...:

Given that each activity is unique:

- The solution to the participation restriction is also unique
- The solution must be adapted to the persons involved and to the context in which the activity takes place.



# Implications ...:

- For each activity, only the persons involved in that activity can accurately describe the participation limitations (the problems) that are manifested and the impact of that limitation/restriction. (Both the professional and the client are EXPERTS in their respective domains).
- The persons involved in the activity must be full participants in identifying solutions that would be feasible, applicable and acceptable to them. This is a condition of GOAL setting.

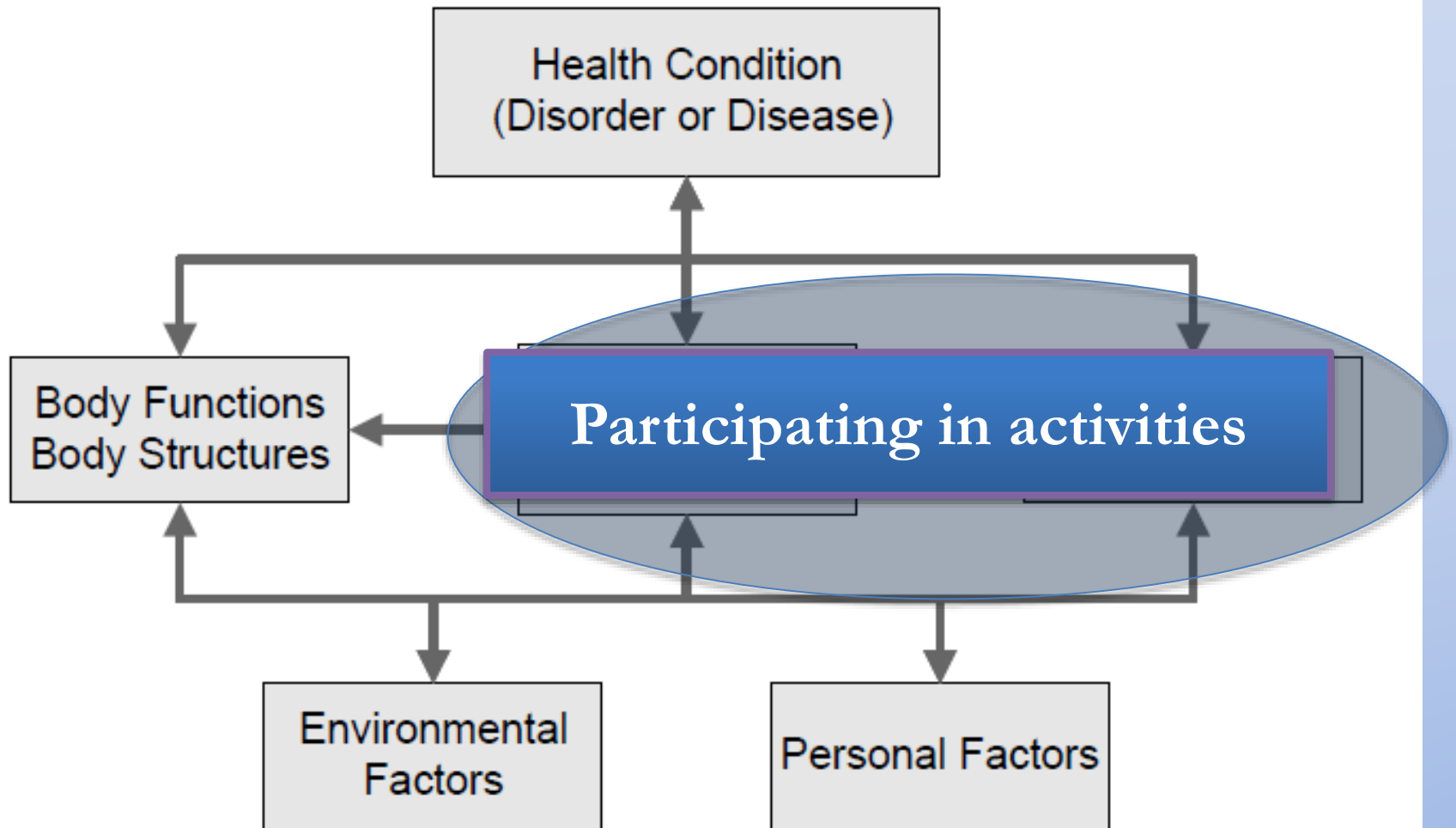
**(NEGOTIATION: client – partner - professional)**

# Implications ...:

- Only the persons involved in the activity are able to describe and define what would constitute a satisfactory outcome as a result of taking part in an intervention program.
- Only the persons involved in the activity are able to determine if (and to what extent) the goal of the intervention program has been attained.

In your practice how do you define a satisfactory outcome?

# International Classification of Functioning, Disability and Health (ICF: WHO, 2001)



### **3. AR IS A PROCESS!**

(things change with time)

# AR is a process

A person's awareness of having hearing difficulties and the impact of the impairment on the person's life is part of a process that evolves from the time the hearing impairment is acknowledged to the time when the individual has reached an optimal restoration of his/her normal life habits.

# AR is a process

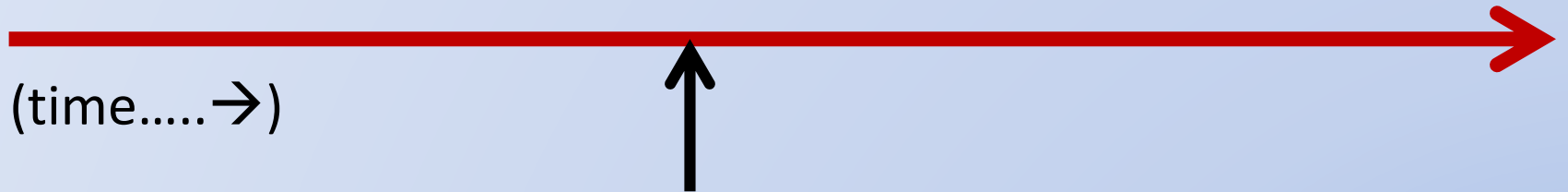
Things may change/evolve as a function of time:

- the person's perception
- reaction to problem
- impairment, activities, participation
- the 'others' change
- the personal factors,
- environmental context
- rehabilitative needs
- the intervention program may bring about changes
- the acceptability of solutions

# AR is a process

The Patient/client journey:

A 70 year old woman with a congenital visual impairment who is developing an acquired hearing loss



The results of your hearing assessment  
Indicates that the client is a candidate for hearing aids

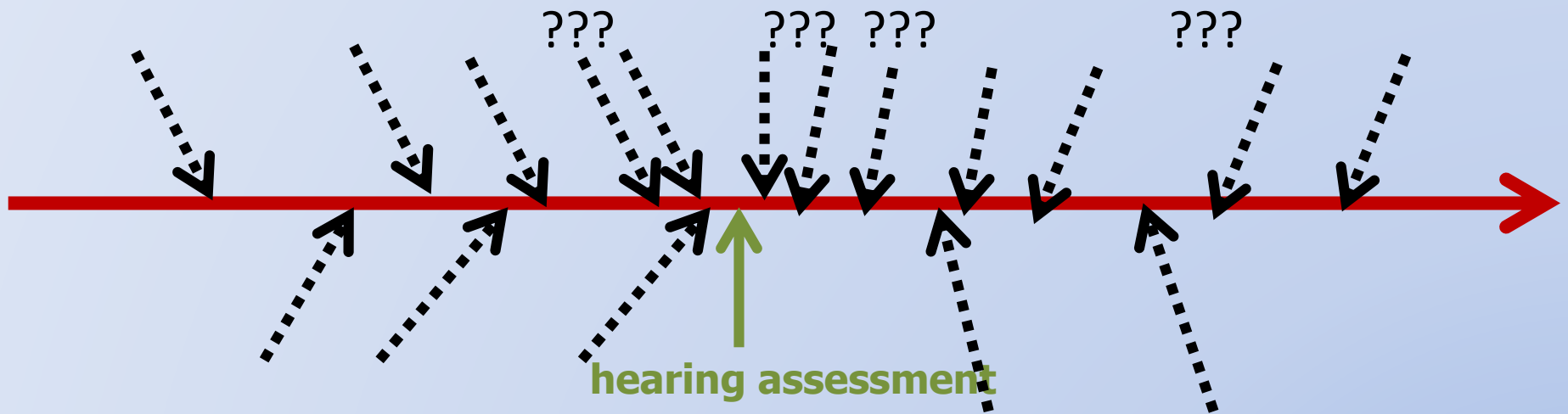
**What are some of the steps that preceded this specific step in 'the journey'?**

**What are some future steps that will likely happen in the person's 'journey'?**

# AR is a process

The Patient/client journey:

A 70 year old woman with a congenital visual impairment



What are some of the steps that preceded this specific step in 'the journey'?

What are some future steps that will likely happen in the person's 'journey'?



# AR is a process

IMPORTANT INFORMATION to consider in AR:

## THE NARRATIVE

The patient's story.. Perception of the evolutionary process

## THE TRIGGER

- Why is that persons seeing you today?
- Why not last month? Why not in three months?

# AR is a process

In selecting an intervention strategy:

- Take into account where the client is in his/her journey
  - Understanding of the hearing loss
  - His perception
  - His ability to cope
  - His immediate need
- AR is a shared partnership
  - Open frank discussions / Negotiation

# AR is a process

Patient journey of adults with HI 229

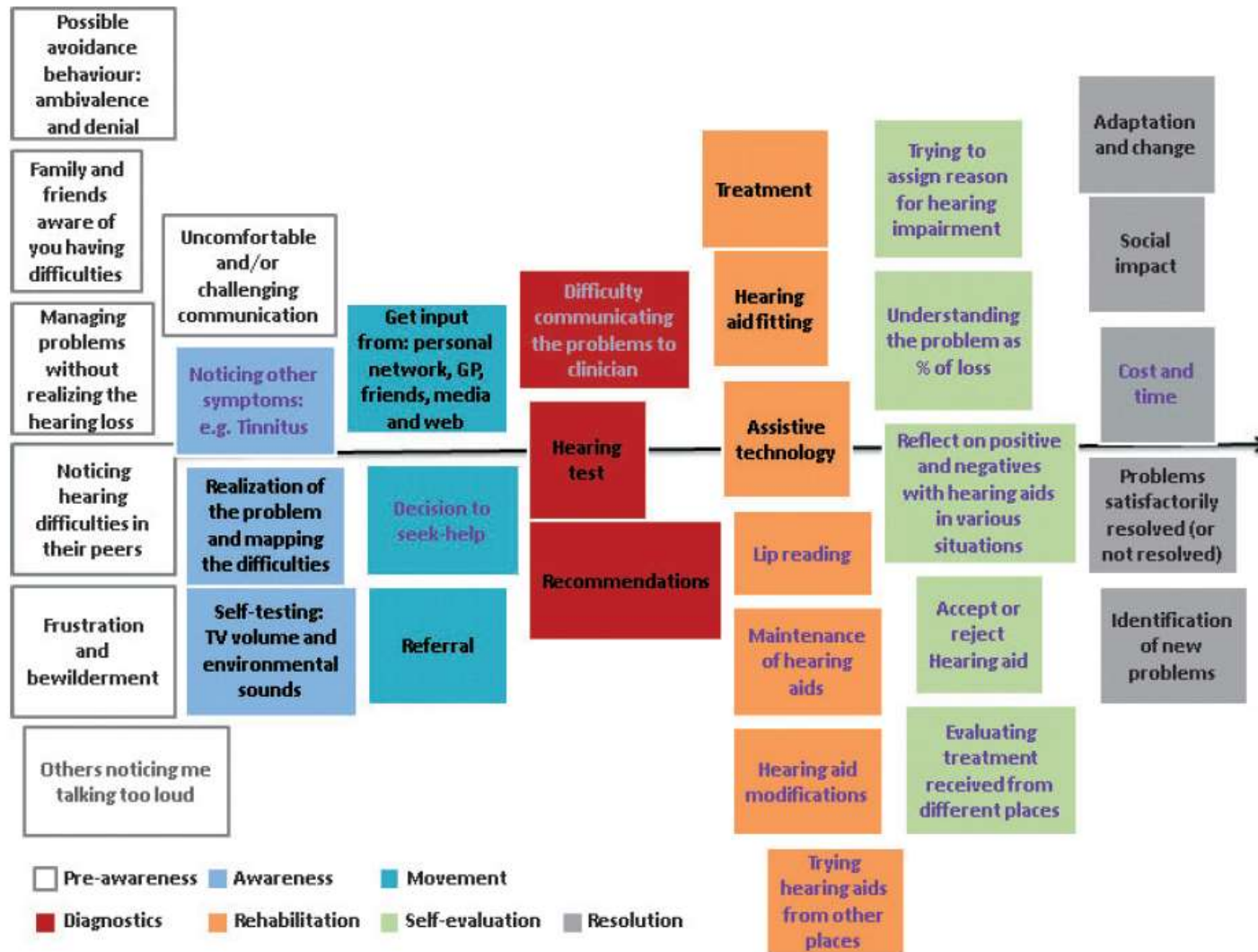
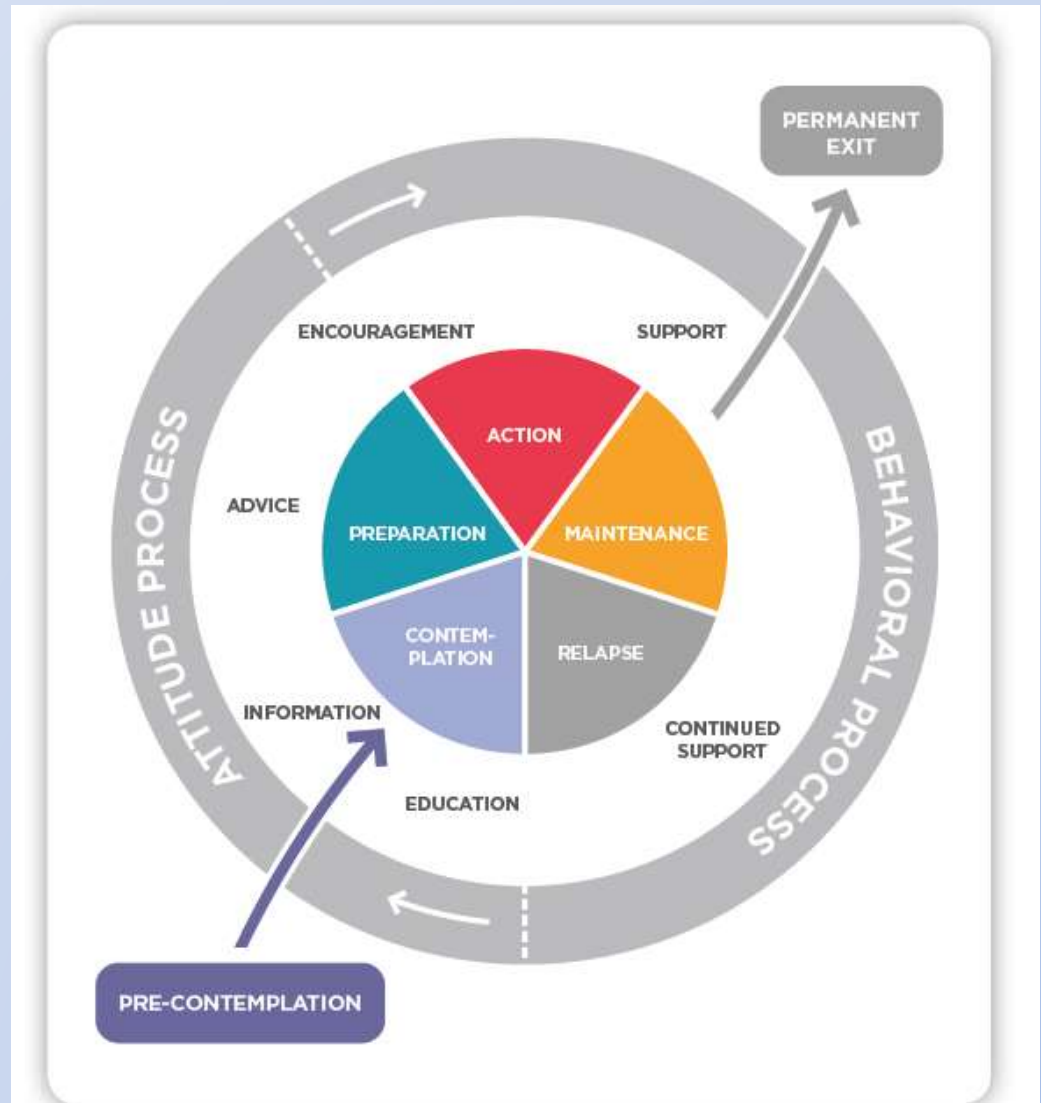


Fig. 2. Patients perspective of their journey through hearing impairment (stages identified only by patients are indicated in purple text).

# Stages of change

- pre-contemplation
- contemplation
- preparation
- action
- maintenance
- support
- relapse



Jørgensen, S.V., Hansen, H.V., Hessov, I.B., Lauritsen, J.B., Madelung, S. & Tønnesen, H. (2003). *Operation - Complications are preventable*; Copenhagen, International Health Promoting Hospitals & Health Services, Bispebjerg Hospital.

# AR is a process

- Clients are not likely to participate in an intervention program that does not cater to their specific needs
- Clients are unlikely to implement a solution that is retained if they are not comfortable with the proposed intervention program  
(e.g., hearing aids, white cane)
- More later when discussing goal setting...

4. AR is a solution-centered  
problem-solving process  
(overcoming restrictions in participating  
in important activities)

# **General sequence of events that apply to problem-solving in AR**

1. Recognize that there is a problem associated with an activity
2. Identify the problem
3. Describe the problem (participation limitations)
4. Set objectives and define outcomes

# **General sequence of events that apply to problem-solving in AR**

5. Identify possible solutions
6. For each solution identified, analyze and evaluate the implications of choosing that solution
7. Select one (or more) acceptable solution
8. Implement the solution (the therapy: clinic, secure environment, real-life)



# **General sequence of events that apply to problem-solving in AR**

9. Evaluate the effect of applying the solution (re: the objective)
10. Identify the factors that facilitated, or constituted and impediment to, the implementation of the solution
11. Identify and evaluate the impacts and consequences of the intervention program

# Key elements ..:

**The client must be involved in:**

- the recognition, identification and description
- definition of the objectives
- the identification, evaluation, selection and implementation of the intervention program

# Key elements ..:

## The client must be involved in:

- the definition of the desired outcome ... including the evaluation criteria
- the identification of the factors (positive and negative) that contributed to the outcome
- The evaluation of the effects, impacts and consequences

## 5. Goal setting

# Goal setting:

The client must be actively involved in defining the goal

The goal will serve at the target outcome

The client must be involved in assessing the outcome as well as the impact and consequences

# Defining the objectives of an intervention program

Goal setting (keywords):

Who

Will do what

Under what circumstance

What is the criterion

The timeline

## **Example of setting an intervention objective according to the criteria described by McKenna (1987).**

At the local tavern, Mr. King will request appropriate repair strategies whenever a communication breakdown occurs. As a result of an eight-week communication management program and assertiveness training program, in which he will participate, Mr. King will always be able to understand the messages intended for him after no more than two repair strategies have been provided to him.

## **Example of setting an intervention objective according to the criteria described by McKenna (1987).**

After completing her rehabilitation program (learn about hearing aids, FM-system, affirmation strategies)

In order to hear the preacher at her local church on Sunday mornings, Mrs. Smith, who has a dual sensory impairment, will always use her FM-system and sit in the first row.



# Defining the objectives of an intervention program

Goal setting (keywords):

Who:

Will do what:

Under what circumstance:

What is the criterion:

The timeline:

The end!

I look forward to  
the discussion 😊



## 6. The process of change (motivational engagement)

The Ida Institute  
([www.idainstitute.dk](http://www.idainstitute.dk))

The client's GOAL(s) often involves changes

- In Attitudes
- In Behaviors

Changes concerning:

- Hearing aids
- Communication strategies
- Self-image (stigma)
- Self-esteem

# How successful is the change?

Information and recommendations rarely work well

- Patient fails to follow recommended practice
- Patient may even drop out of treatment
- Professional feels and frustration and dissatisfaction

It is better to let the patient convince themselves of the need to change

- This is more effective
- It has a longer-lasting impact
- It utilises professional expertise and time more effectively

**BUT HOW??**

# The problem: it's hard to change habits

We often fail to do what has been recommended, even if we know it is for our own benefit.

## Personal:

- ✓ Losing weight
- ✓ Adequate exercise program

## Medical:

- ✓ Taking vital medication
- ✓ Controlling sugar intake

## Audiology:

- ✓ Using hearing devices
- ✓ Adopting effective communication strategies

**Knowing is not automatically followed by doing**

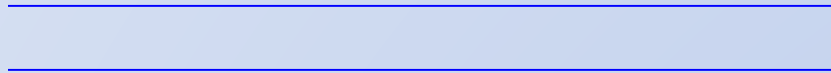
**Telling the client to follow your advice does not mean he/she will do it**

# The Process of Changing Habits

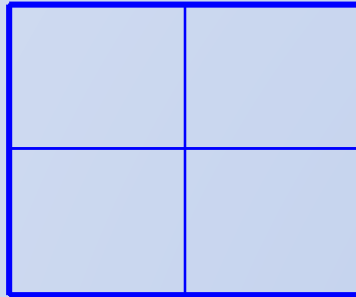
Changing habits is fundamental in audiology.

People follow a well-recognised pattern, when changing *any* habits  
Some simple tools can support the change process.

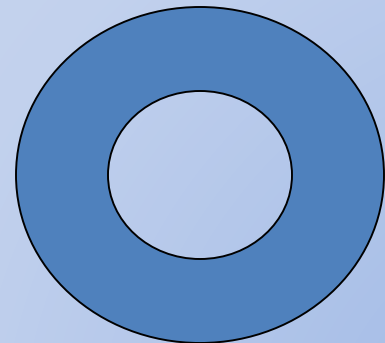
Two lines...



...a box...

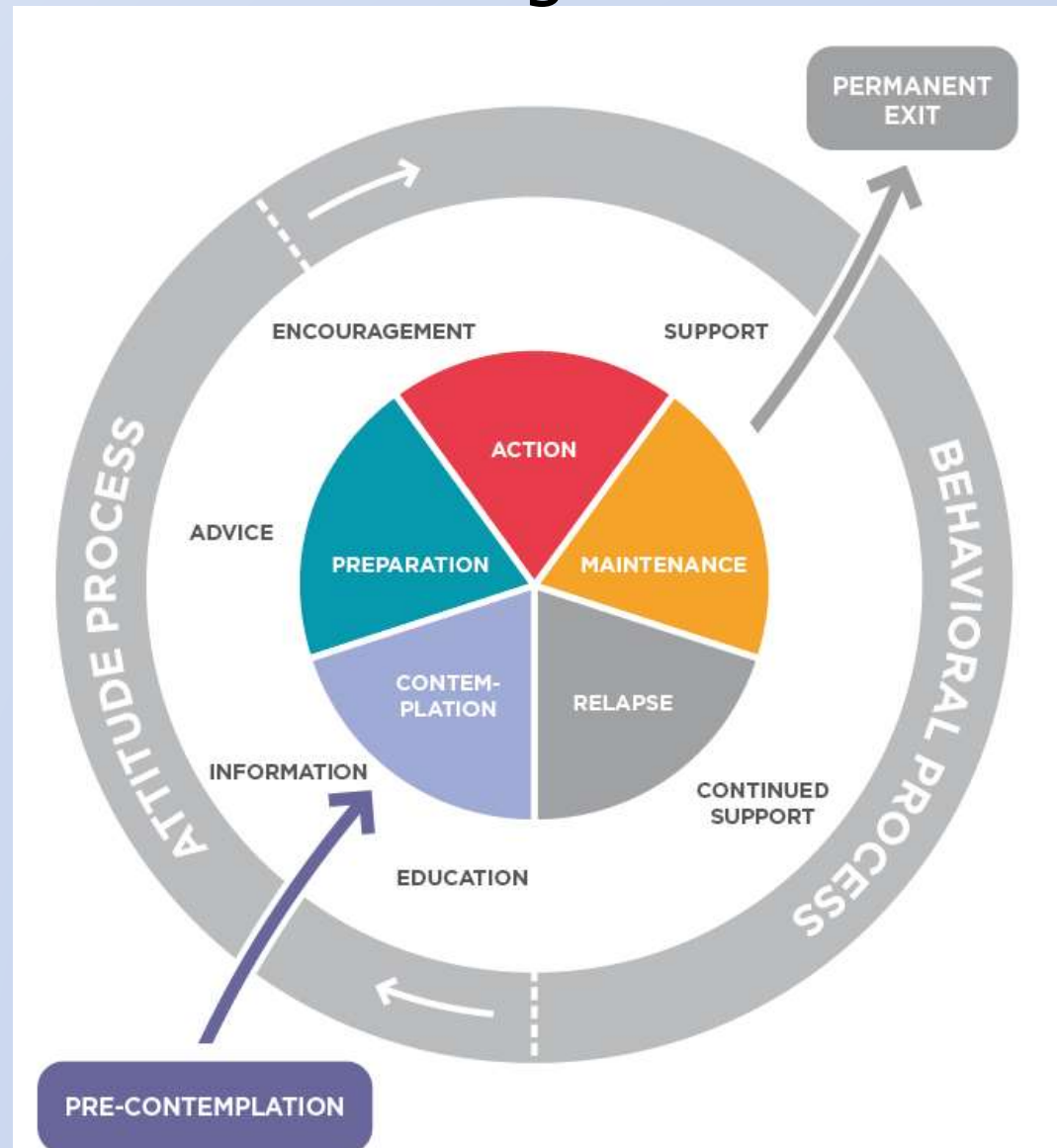


...and a circle



# Transtheoretical model of intentional behaviour change

- When and how shifts in attitude occur
- Cyclical pattern of movement
- Common set of processes
- Systematic integration of **stages** and **processes** of change
- Distinct and measurable stages





# Activities to help someone CHANGE

Think about something that **YOU** would like to Change:

- loss weight
- do more exercise
- Jump in a parachute
- not be late for work
- spend more time with your.. (mother/father/child/...)
- stop drinking so much coffee
- quit your job
- leave your spouse

# The lines

Identify the *patient's* views with respect to:

- how important it is to change their habits
- how strongly they believe in their ability to change

Two lines...

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# The lines

1. How important is it for you to change ..... right now?



# The lines

2. How much do you believe in your ability to change ..... ?



# The lines

1. How important is it for you to change ..... right now?



If you wrote 0,1 or 2: what would it take to  
'move the importance' to 7 or 8?

If you wrote 5,6 or 7: why not 1 or 2? What  
would it take to 'move the importance to 9?

# The lines

2. How much do you believe in your ability to change ..... ?



If you wrote 0,1 or 2: what (ability) do you need to 'move you' to 7 or 8?

If you wrote 5,6 or 7: why not 1 or 2? What (strength) do you have to rate yourself higher than 2?

What would need to happen for you to be able to change?

What can I (the professional) do to help you change?

# The Box: Decisional Balance

## Cost/benefit assessment of changing

<p>What are the...</p> <p>1) Benefits of staying the same</p> <p>Or</p> <p>2) Benefits of not changing?</p>	<p>1) What is the cost /disadvantage of staying the same?</p> <p>OR</p> <p>2) What is the cost of not changing?</p>
<p>3) The costs /disadvantages of changing</p>	<p>4) The benefits of changing?</p>

# **The role of the professional in AR:**

Shared partnership/joint decision making

- Expert
- Partner
- Support



The end

Thank you  
for your attention  
and ...  
your interest

I look forward to  
the discussion 😊

