

A Multimedia Hearing Loss Prevention Program for Adults

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It has been said that.....

**“Prevention is
the best form of
rehabilitation”**



Purpose

To develop an interactive, self-administered program to prevent noise damage in veterans and others

Goals



Why is this important?

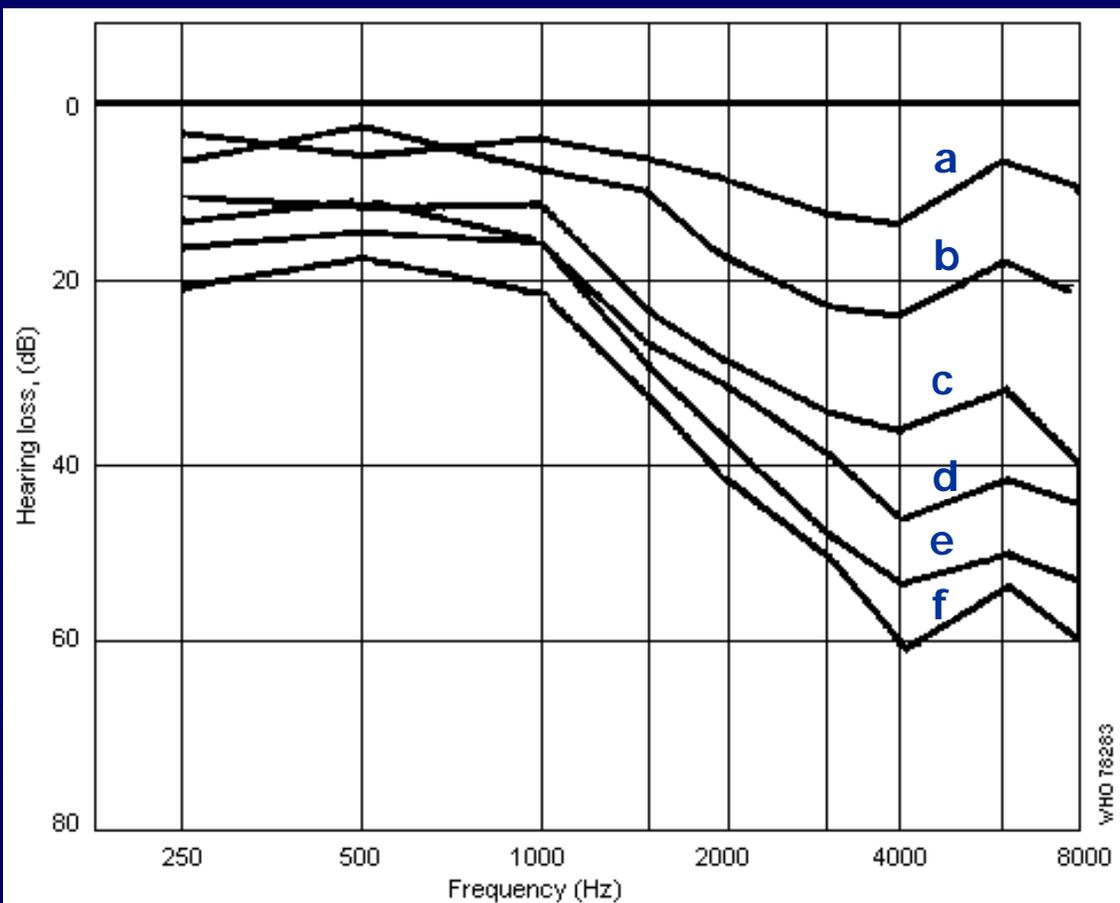


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Impact of noise exposure



Best ear thresholds of 203 miners as a function of noise exposure (yrs)

a = < 1 yr

c = 6-10 yrs

e = 21-30 yrs

b = 1-5 yrs

d = 11-20 yrs

f = > 30 yrs

From Johanssen, 1952

RR&D



NCRAR

Noise Reduction Ratings (NRR)

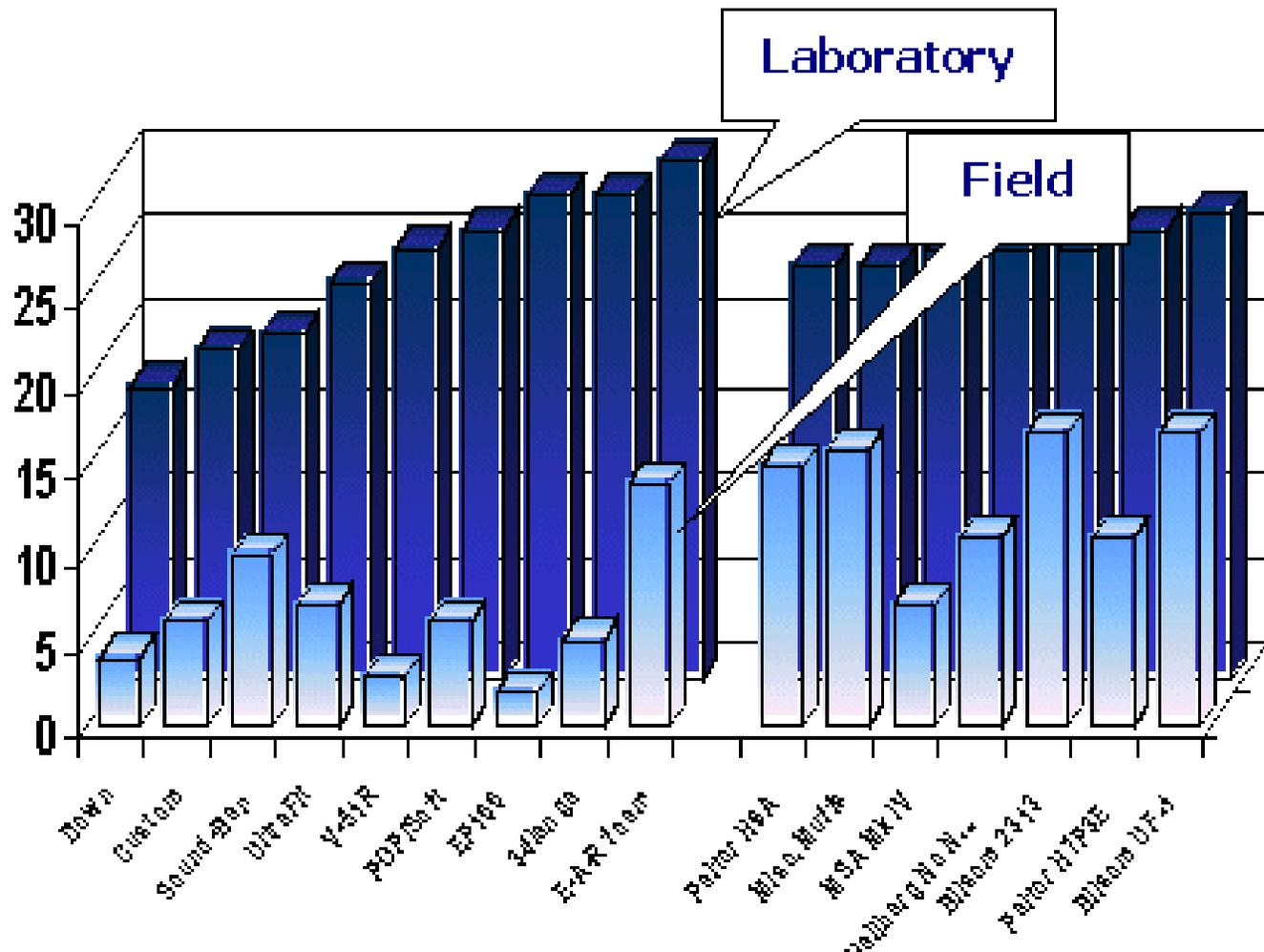
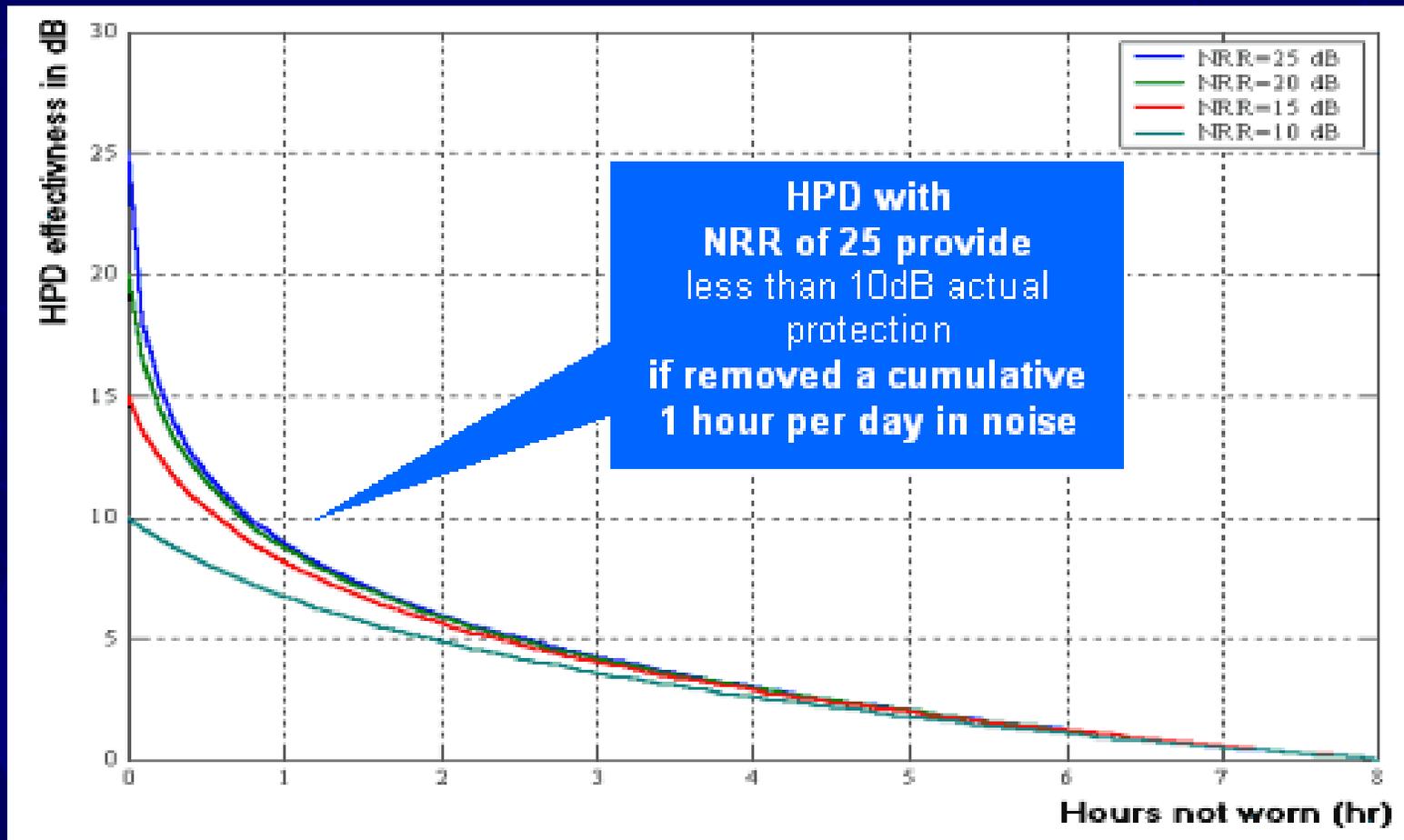


Figure 0 Real-world and lab protection values for hearing protection. From Berger, EARLog 20, © AEARO Corp.

Effect of non-use of hearing protection



Psychosocial impacts of hearing loss

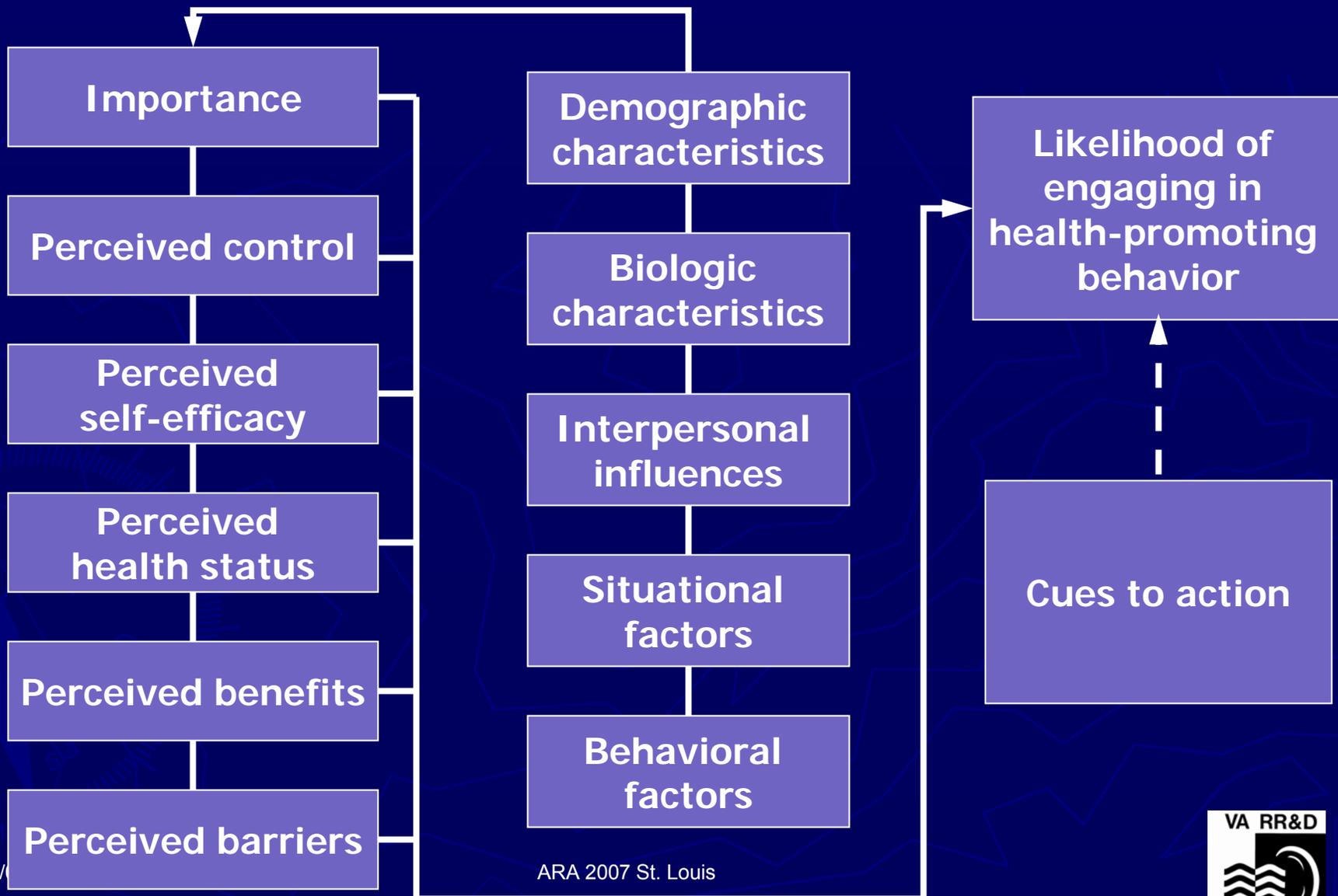
- **Withdrawal**
- **depression**
- **isolation**
- **impact on interpersonal relationships**
- **impacts on work**
- **self-esteem**
- **etc etc**

Theoretical basis: Health Belief Model

Based on premises that health-related behaviors are determined by whether individuals

- Perceive themselves to be susceptible to a particular health problem
- See this problem as serious
- Are convinced that treatment or prevention activities are effective yet not overly costly in terms of money, effort, or pain
- Are exposed to a cue to take a health action

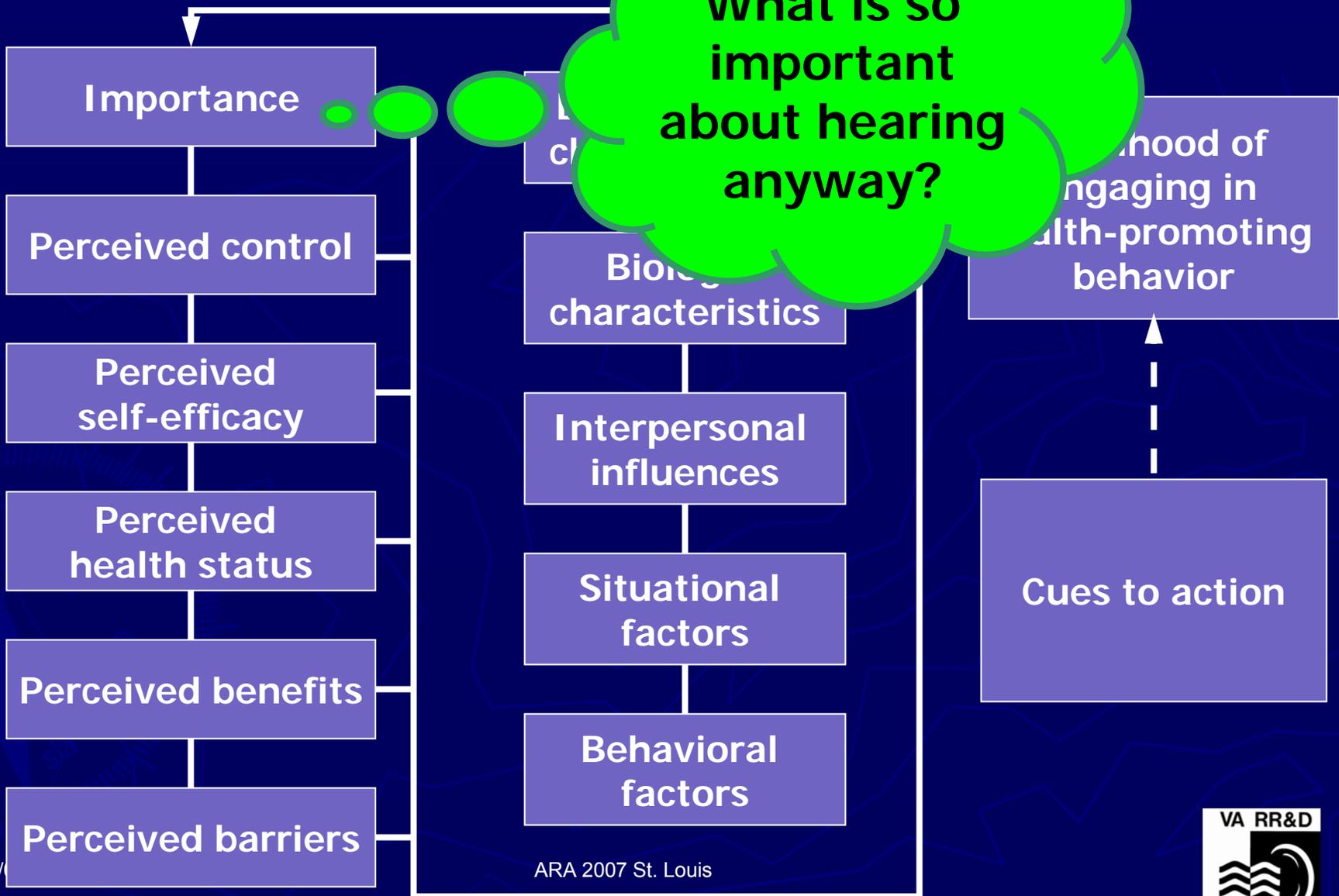
Health Belief Model



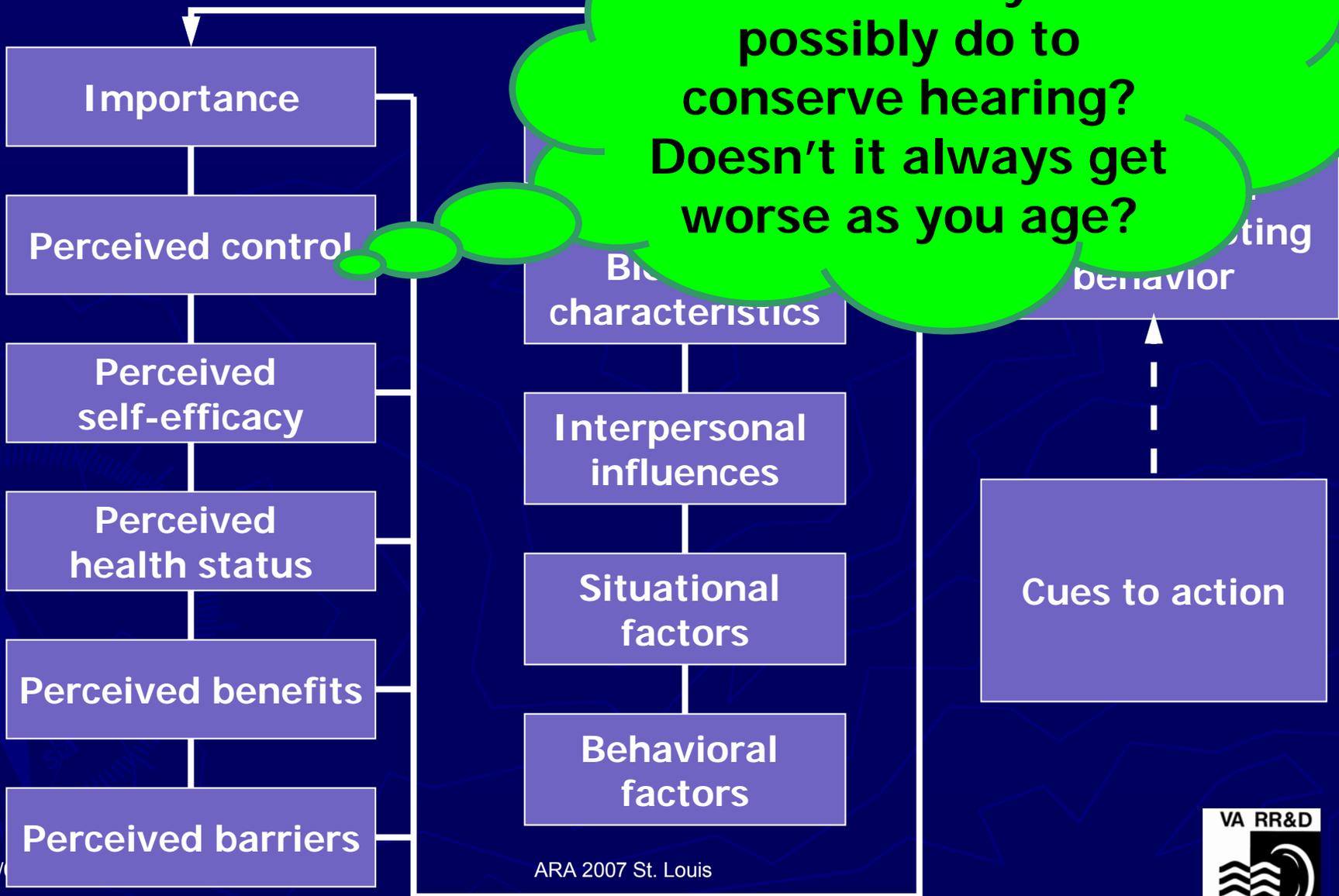
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What is so important about hearing anyway?



What can anyone possibly do to conserve hearing? Doesn't it always get worse as you age?



Can I really control how much noise I am exposed to?

Isn't hearing protection difficult to use correctly?





Isn't it too late if I already have hearing loss? I'm old so does it matter?

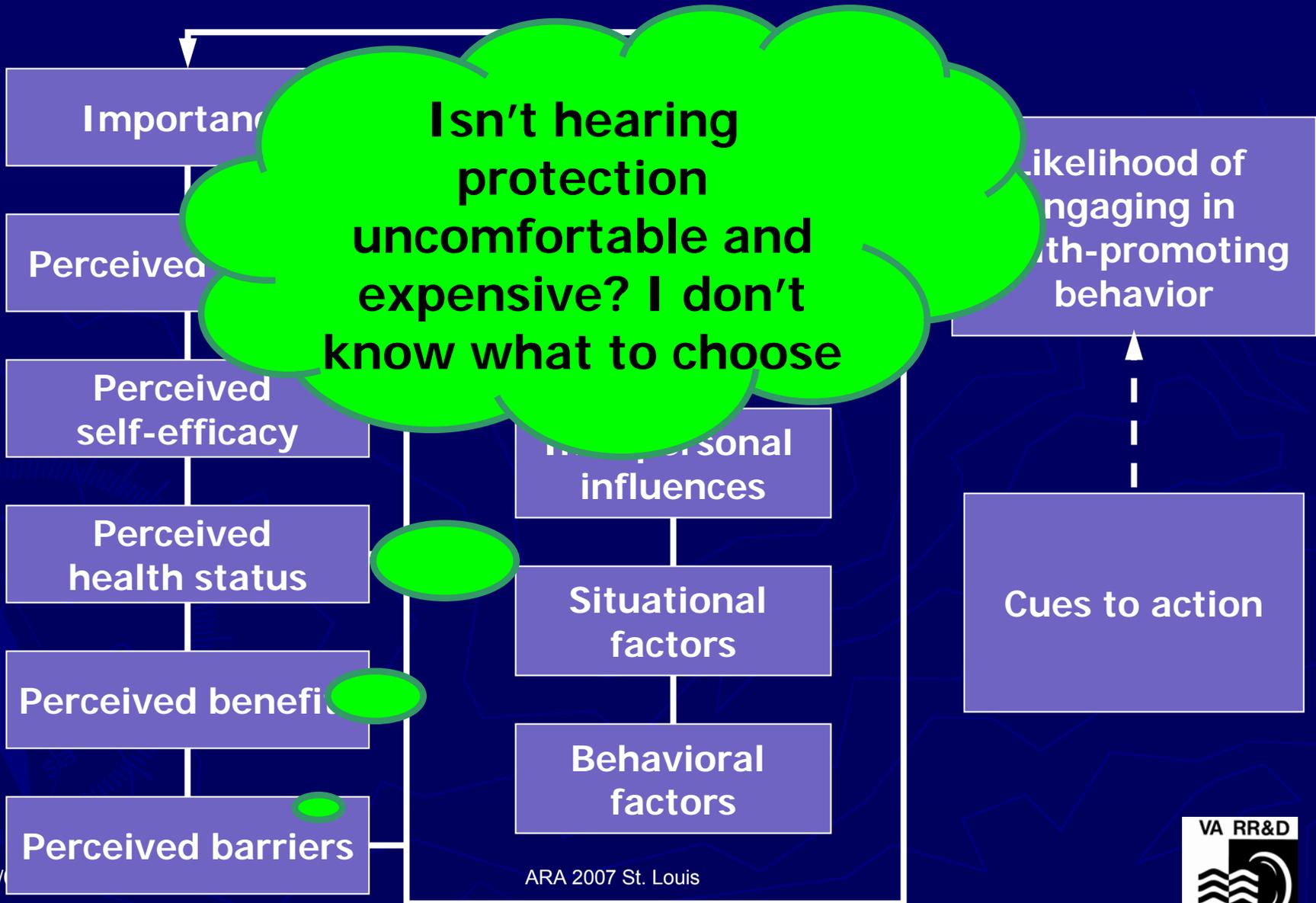
Likelihood of engaging in promoting behavior

Interpersonal influences
Situational factors
Behavioral factors

Cues to action

Importance
Perceived control
Perceived self-efficacy
Perceived health status
Perceived benefits
Perceived barriers





Concepts

Forty four percent of people over age 65 have some form of vision-reducing eye disease

One in three individuals over age 65 have some form of vision-reducing eye disease

- **Must be**
- **Must be**
- **Keep literacy**
- **Easy to see**
- **Adjustable level**
- **Must be short in duration with optional modules**
- **Make it fun and interesting**

Program content

- **Spent much time developing graphs – perhaps still too complex**
- **Not decided on headphones versus speakers**

Program content

- **More specifically the program provides education about:**
 - **Hearing**
 - **Impacts of hearing loss**
 - **Impacts of noise**
 - **Hearing protectors**
 - **When to use protection**

Program content

Video clips:

- Introduction, How to Protect your hearing, When to protect your hearing? Why protect your hearing? What happens when you hear?

Interactive sections:

- Which protection is right for you?, How loud is too loud? What happens when you hear?, Simulations of hearing loss (in development)

Hearing screening test

Demo

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What are we going to do with it?

- ▶ **Assess effectiveness by having users complete questionnaires at start and end about knowledge, attitudes, current behaviors and intended behaviors**
- ▶ **Short-term and long-term follow-up to examine changes in knowledge, attitudes and behavior**
- ▶ **Set up a screening database across the country**
- ▶ **Received Joint Initiative Funding (JIF) from DoD and VA to set up booths in 2 army facilities and a VA facility**



Thank you



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