

LONDON  
SCHOOL of  
HYGIENE  
& TROPICAL  
MEDICINE



**International**  
Centre for Evidence  
in Disability

**Third Coalition for Global Hearing Health Conference**  
30 May – 1 June 2012, Pretoria, South Africa

# **Public Health Approach to Prevention of Hearing Loss**

## **- recent information and actions**

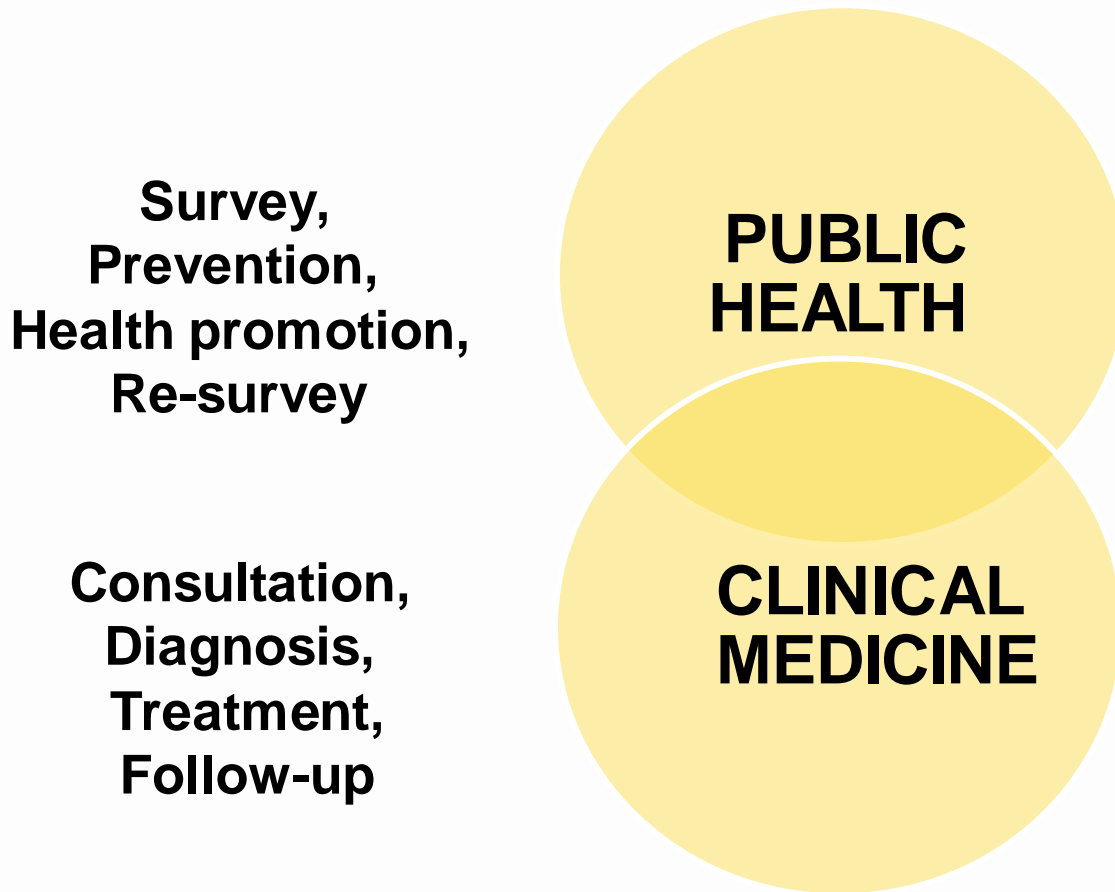
**Andrew Smith**

Honorary Professor,  
International Centre for Evidence in Disability,  
London School of Hygiene & Tropical Medicine, U.K.

# OUTLINE OF PRESENTATION

- **Public Health: Definition, characteristics, core actions**
- **Prevalence and burden of hearing loss**
- **Types of Prevention**
- **Interventions on route to prevention of hearing impairment.**

# **PUBLIC HEALTH: Health of populations**



# **CLINICAL MEDICINE: Health of individuals**

# Medical Model

- PERSONAL problem
- medical care
- individual treatment
- professional help
- personal adjustment
- behaviour
- care
- health care policy
- individual adaptation

# Medical *plus* Social Model

- PERSONAL problem + SOCIAL problem
- medical care + social integration
- individual treatment + social action
- professional help + individual & collective responsibility
- personal adjustment + environmental manipulation
- behaviour + attitude
- care + human rights
- health care policy + politics
- individual adaptation + social change

See **ICF (International Classification of Functioning, Disability & Health)**

# OUTLINE OF PRESENTATION

- **Public Health: Definition, characteristics, core actions**
- **Prevalence and burden of hearing loss**
- **Types of Prevention**
- **Interventions on route to prevention of hearing impairment.**

# WHO GLOBAL ESTIMATE 2005

**278 million persons (4.6%)** have moderate or worse hearing impairment

**+**

**364 million** have mild hearing impairment (6.0%)

**=**

**642 million (10.6%)** have any level of hearing impairment (28% are children)

**(80% live in low & middle income countries)**

# WHO Grades of Hearing Impairment

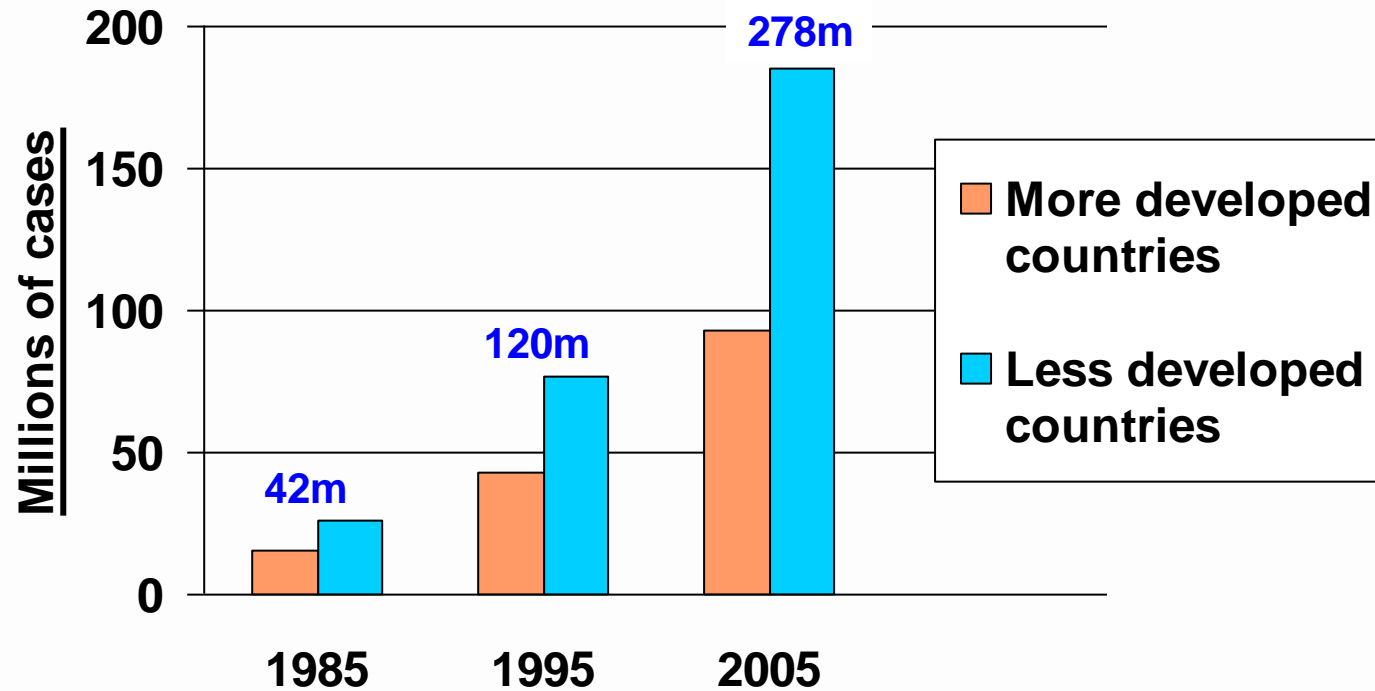
<b>Grade 0</b> None		<b>25 dB or less</b>	No/slight problems Hears whispers
<b>Grade 1</b> Slight		<b>26 - 40 dB</b>	Hears/repeats words in normal voice at 1m
<b>Grade 2</b> Moderate	Child Adult	<b>31 - 60 dB</b> <b>41 - 60 dB</b>	Hears/repeats words in raised voice at 1m
<b>Grade 3</b> Severe		<b>61 - 80 dB</b>	Hears words shout- ed into better ear
<b>Grade 4</b> Profound		<b>81 dB or more</b>	Cannot hear/under- stand shouted voice

**Disabling  
hearing  
impairment**

[Average 0.5, 1, 2, 4 kHz in better ear]



# Changes in WHO estimates of disabling hearing impairment since 1985



**Institution: Library** Sign In as Personal Subscriber

[Oxford Journals](#) > [Medicine](#) > [European Journal of Public Health](#) > [Advance Access](#) > 10.1093/eurpub/ckr176

# Global and regional hearing impairment prevalence: an analysis of 42 studies in 29 countries

Gretchen Stevens<sup>1,\*</sup>, Seth Flaxman<sup>1,\*</sup>, Emma Brunskill<sup>2</sup>, Maya Mascarenhas<sup>3</sup>,  
Colin D. Mathers<sup>1,\*</sup> and Mariel Finucane<sup>4</sup> on behalf of the Global Burden of Disease  
Hearing Loss Expert Group\*\*

Author Affiliations

*Correspondence:* Gretchen Stevens, 22 Avenue Appia, Geneva 1211, Switzerland. Tel:

 +41 22 791 1031 , e-mail: [stevensg@who.int](mailto:stevensg@who.int)

***1 Department of Health Statistics and Informatics, World Health Organization, Geneva, Switzerland***

***2 Department of Computer Science, University of California, Berkeley, CA, USA***

***3 Department of Epidemiology and Biostatistics, University of California, San Francisco, CA, USA***

***4 Department of Global Health and Population, Harvard School of Public Health, Boston, MA, USA***



## This Article

Eur J Public Health (2011)  
doi: 10.1093/eurpub/ckr176

First published online: December  
24, 2011

[Abstract](#)

» [Full Text \(HTML\)](#)

[Full Text \(PDF\)](#)

[Supplementary Data](#)

**Classifications**

[Article](#)

## **THIS STUDY**

- Contribution to the Global Burden of Diseases (GBD) main study
- but, results prepared independently of the final estimates.

## **PERSONS WHO RE-ANALYSED DATA FOR THE STUDY:**

Bamini Gopinath, Catherine McMahon, Paul Mitchell, Linnett Sanchez, Mary Luszcz, Cecilia Bevilacqua, Beatriz Raymann, Luciana Gigante, Bo Karlsmose, Torsten Lauritzen, Janus Laust Thomsen, Alejandra Ullauri, Carlos Jimenez, Abraham Joseph, Anand Job, Theodore Randrianarisoa, Rinasoa Andriamampianina, Bola Olusanya, Kristian Tambs, Bo Engdahl, Otto Inge Molvær, Ulf Rosenhall and Chia-Wen Ko.

## **GLOBAL BURDEN OF DISEASE HEARING LOSS EXPERT GROUP:**

Jose Acuin, Peter Alberti, Jorge Beria, Maria Cecilia Bevilacqua, Xingkuan Bu, Adrian Davis, Luciana Petrucci Gigante, Howard Hoffman, Abraham Joseph, Mazin Al-Khabori, Young-Ah Ku, Ian Mackenzie, Thais Morata, Katrin Neumann, Valerie Newton, Bolajoko Olusanya, Donatella Pascolini, Agnete Parving, James Saunders, Andrew Smith, George Tavartkiladze.

# Global and regional hearing impairment prevalence: an analysis of 42 studies in 29 countries

Stevens G et al. Eur J Public Health 2011;eurpub.ckr176

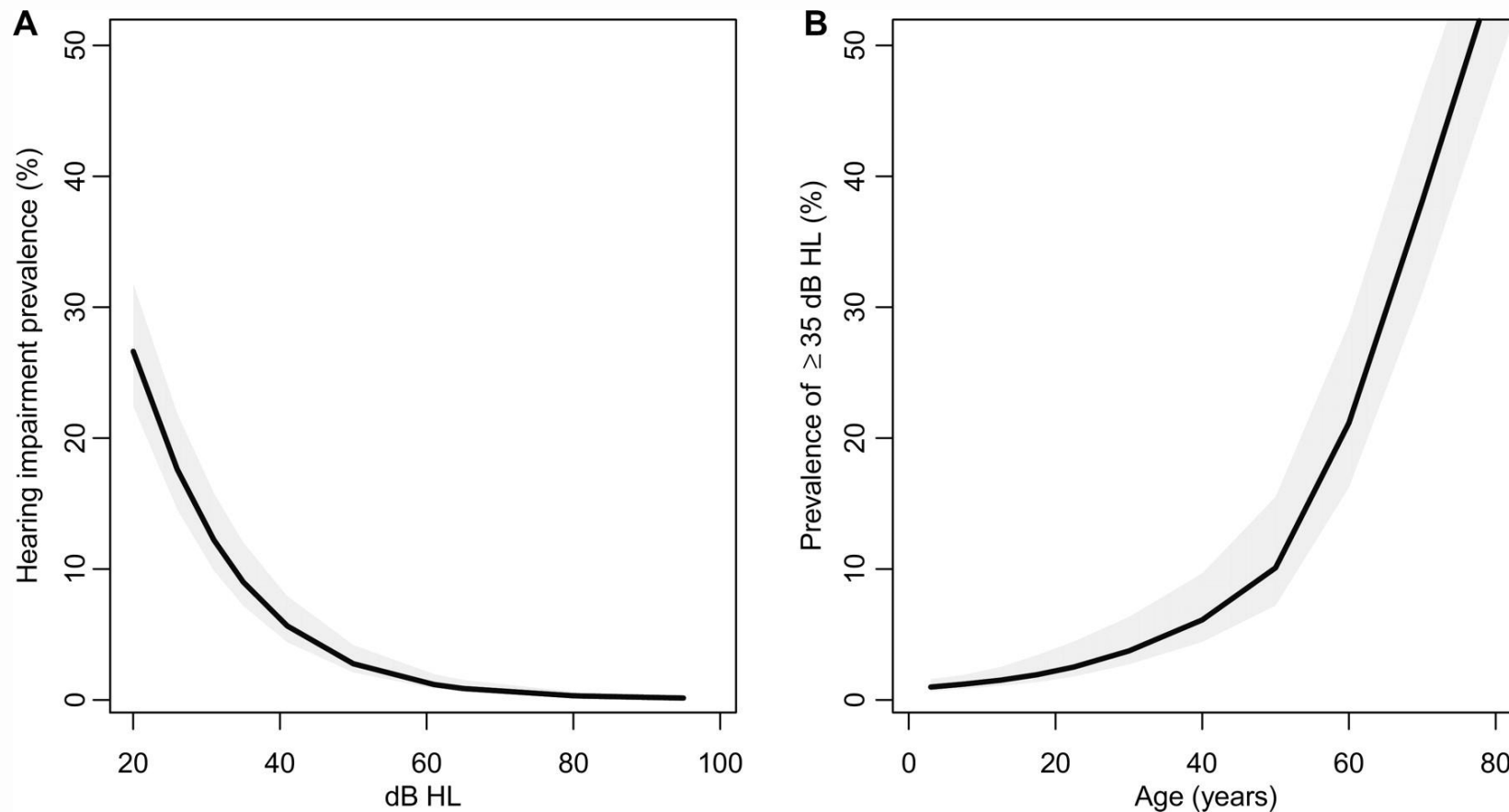
**Table 1**  
Hearing impairment categories

Hearing impairment category	Better ear hearing level (dBHL)	Hearing in a quiet environment	Hearing in a noisy environment
Unilateral	<20 in the better ear; ≥35 in the worse ear	Does not have problems unless sound is near poorer hearing ear	May have real difficulty following/taking part in a conversation
Mild	20–34	Does not have problems hearing what is said	May have real difficulty following/taking part in a conversation
Moderate	35–49	May have difficulty hearing a normal voice	Has difficulty hearing and taking part in conversation
Moderately Severe	50–64	Can hear loud speech	Has great difficulty hearing and taking part in conversation
Severe	65–79	Can hear loud speech directly in one's ear	Has very great difficulty hearing and taking part in conversation
Profound	80–94	Has great difficult hearing	Cannot hear any speech

Hearing impairment categories used in this analysis are defined using the better ear hearing threshold in decibels averaged over frequencies 0.5, 1, 2 and 4 kHz (dBHL)

Global pattern of hearing impairment (A) by hearing threshold and (B) by age.

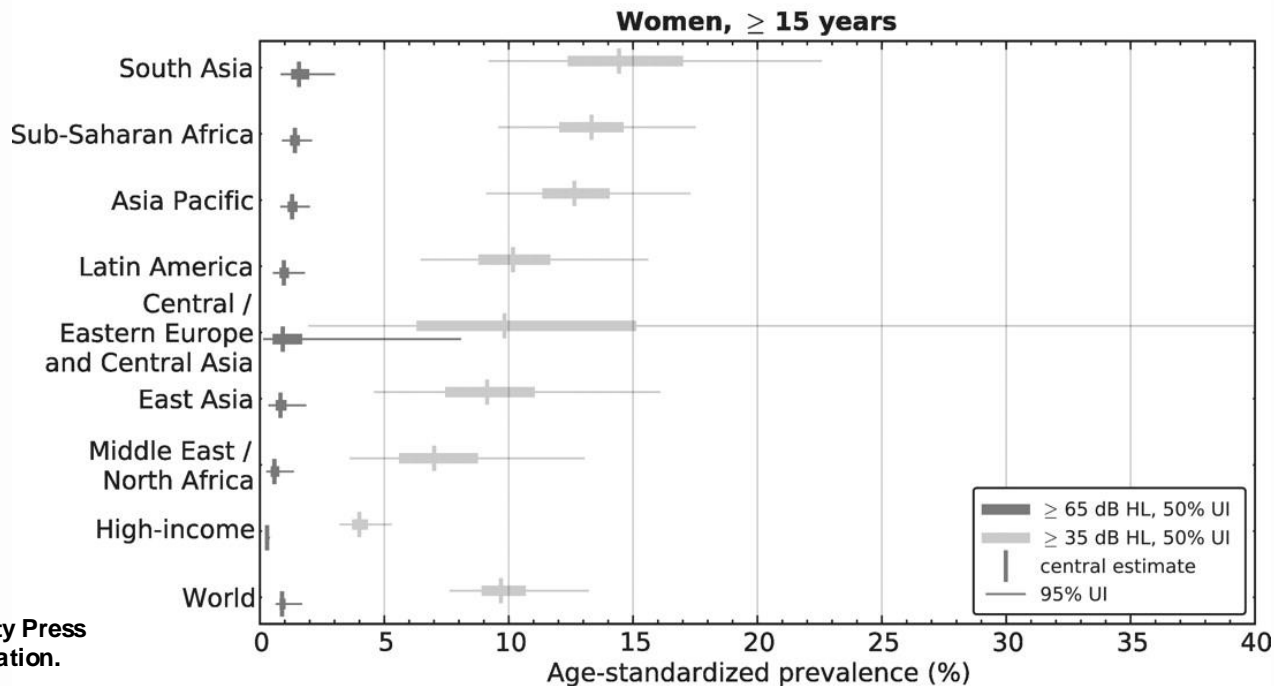
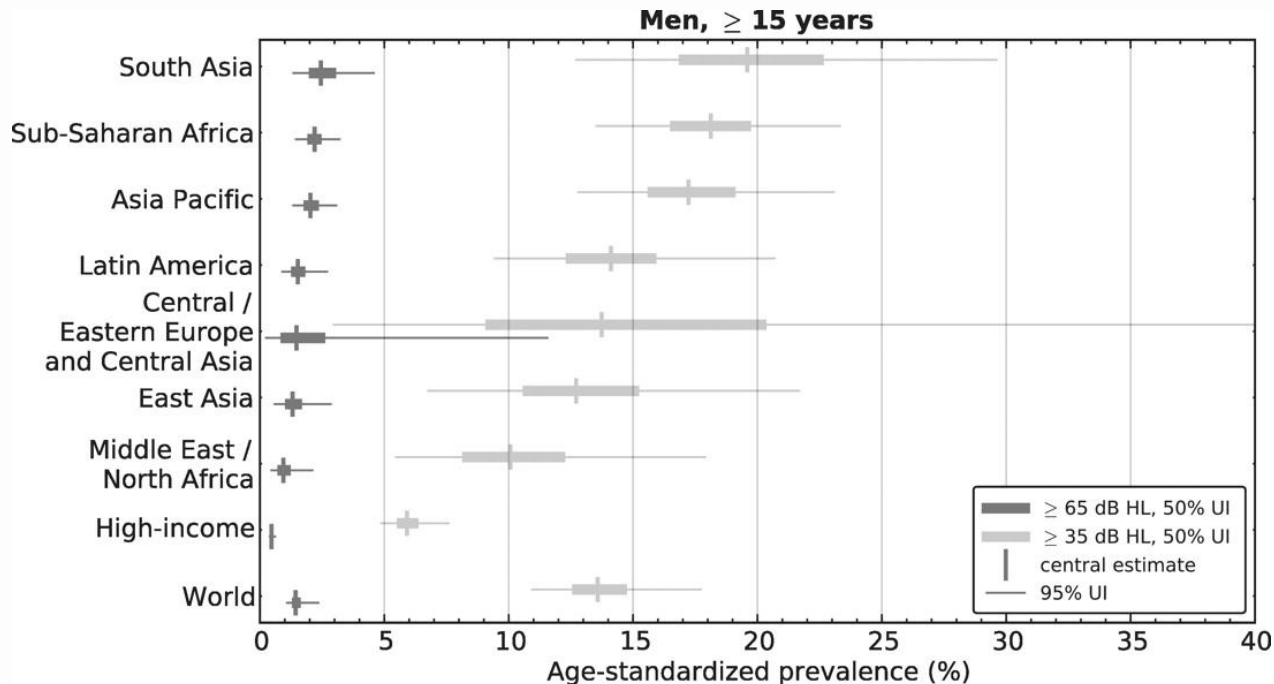
(A) shows age-standardized cumulative prevalence; (A) & (B) shaded areas show 95% uncertainty intervals



Stevens G et al. Eur J Public Health 2011;eurpub.ckr176

# Age-standardized prevalence of hearing impairment, 2008.

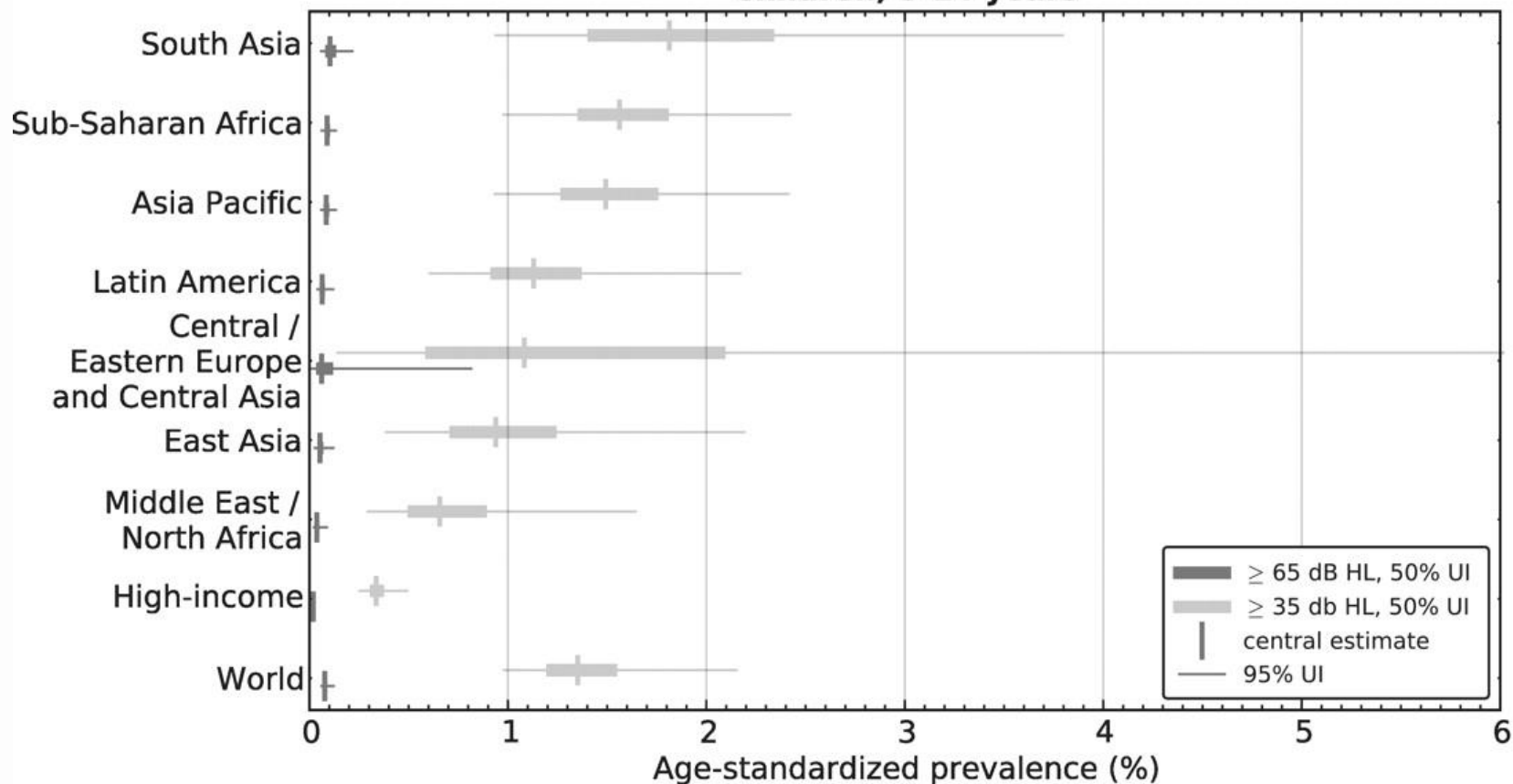
From: Stevens G et al.  
 Eur J Public Health 2011;  
 eurpub.ckr176



# Age-standardized prevalence of hearing impairment, 2008.

From: Stevens G et al. Eur J Public Health 2011;  
eurpub.ckr176

## Children, 5-14 years



# Key points from Stevens et al, 2011

❑ **Global.** Hearing impairment prevalence is higher in low- and middle-income regions, than in the High income region.

❑ **Regional.**

## **Highest prevalences $\geq 35$ dBHL:**

South Asian Region – adults 17.0%, children 2.2%

Sub-Saharan Africa – adults 15.7%, children 1.9%

Central/Eastern Europe and Central Asia Region - adults 13.9%

Asia-Pacific Region – children 1.8%

## **Lowest prevalences $\geq 35$ dBHL:**

Middle East and North African Region – adults 5.9%

High Income Region – adults 4.9%, children 0.4%

❑ **Estimates of hearing impairment: uncertain because so few population-based surveys measure hearing impairment.**

❑ **Repeated cross-sectional, population-based surveys urgently needed to determine trends, particularly in regions with highest prevalences.**



# COMPARISON OF DISABLING HEARING LOSS BETWEEN WHO 2005 AND STEVENS et al 2008

SOURCE OF DATA ON “DISABLING HEARING LOSS”:	WHO 2005 (≥41dBHL)		STEVENS et al (≥35dBHL)	
	Number in millions in 2005	Global prevalence (%)	Number in millions in 2008	Global prevalence (%)
<b>MALES</b>	106	4.6	299	12.2
<b>FEMALES</b>	104	4.5	239	9.7
<b>CHILDREN</b>	<b>Age 0-15y (≥31dBHL)</b>		<b>Age 5-15y (≥35dBHL)</b>	
	68	3.6	16	1.3
<b>ALL</b>	<b>278</b>	<b>4.3</b>	<b>554</b>	<b>9.1</b>

# GBD 2010 Estimation Strategy Report for Hearing Loss

Report to Expert Group. Prepared by: Alvarado, Lozano & Murrav. Interim results 10 May 2012

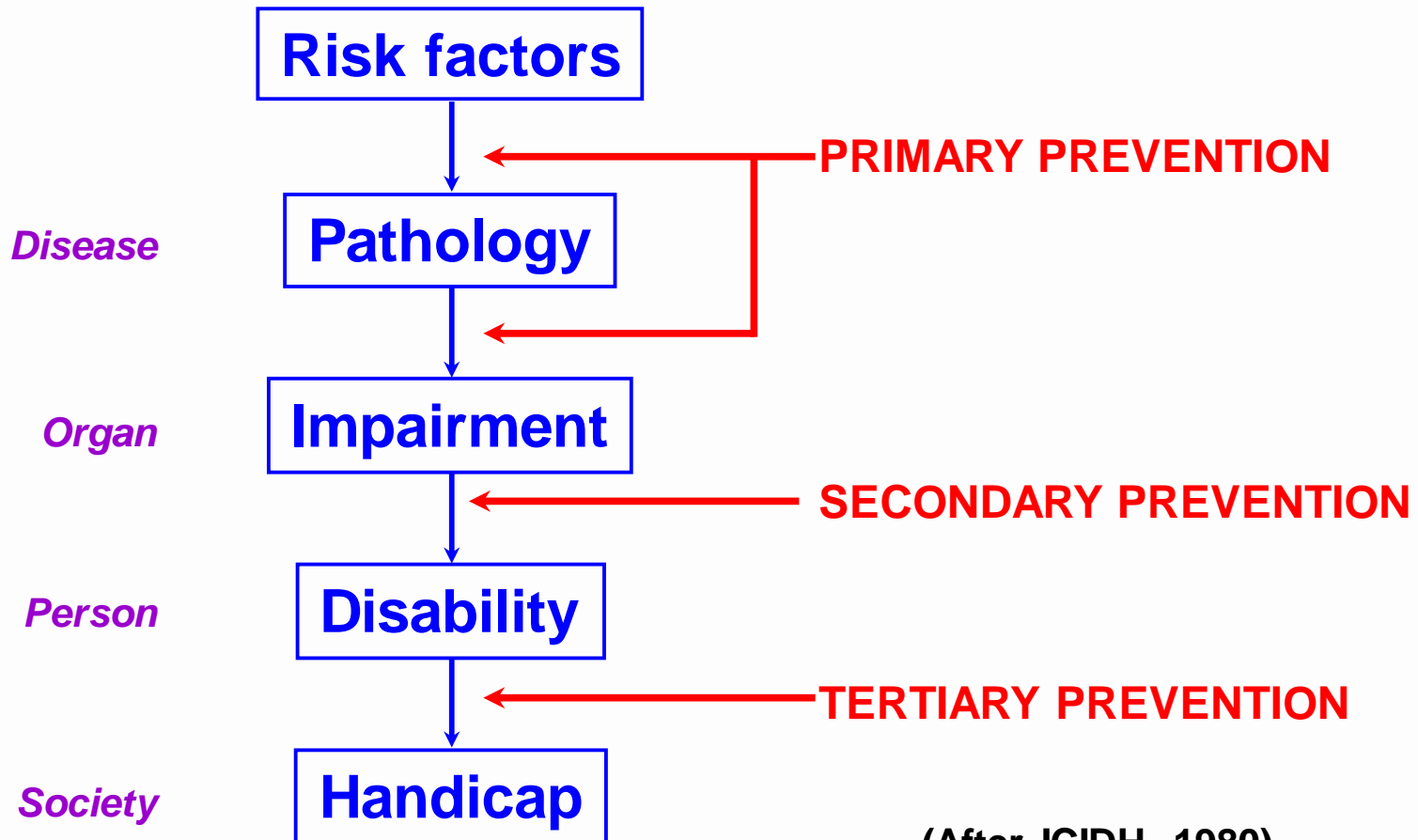
## Table 7: Comparison of hearing loss prevalence estimates at ≥35

Table 7: Comparison of hearing loss prevalence estimates at 35+ dB				
Males per 100	Region	GBD Estimate (2012)	Stevens et al. (2011)	Ratio
Males per 100	High-income	5.81	8.62	0.67
	Central/Eastern Europe and Central Asia	8.27	14.61	0.57
	Sub-Saharan Africa	6.67	12.30	0.54
	North Africa/Middle East	3.96	7.16	0.55
	South Asia	8.25	15.42	0.53
	Asia Pacific	6.1	14.05	0.43
	Latin America/Caribbean	7.9	12.49	0.63
	East Asia	7.64	12.27	0.62
	World	7.07	12.65	0.56
	Females per 100	High-income	5.52	7.99
Central/Eastern Europe and Central Asia		8.86	14.25	0.62
Sub-Saharan Africa		5.77	9.46	0.61
North Africa/Middle East		3.44	5.43	0.63
South Asia		7.34	11.79	0.62
Asia Pacific		5.53	11.32	0.49
Latin America/Caribbean		6.82	10.17	0.67
East Asia		6.56	9.63	0.68
World		6.36	10.33	0.62
Children (5-14) per 1000		High-income	6.42	3.96
	Central/Eastern Europe and Central Asia	11.43	11.27	1.01
	Sub-Saharan Africa	15.63	15.89	0.98
	North Africa/Middle East	8.16	6.95	1.17
	South Asia	15.81	18.51	0.85
	Asia Pacific	10.51	15.23	0.69
	Latin America/Caribbean	13.74	11.65	1.18
	East Asia	12.36	9.95	1.24
	World	12.95	13.85	0.94

# OUTLINE OF PRESENTATION

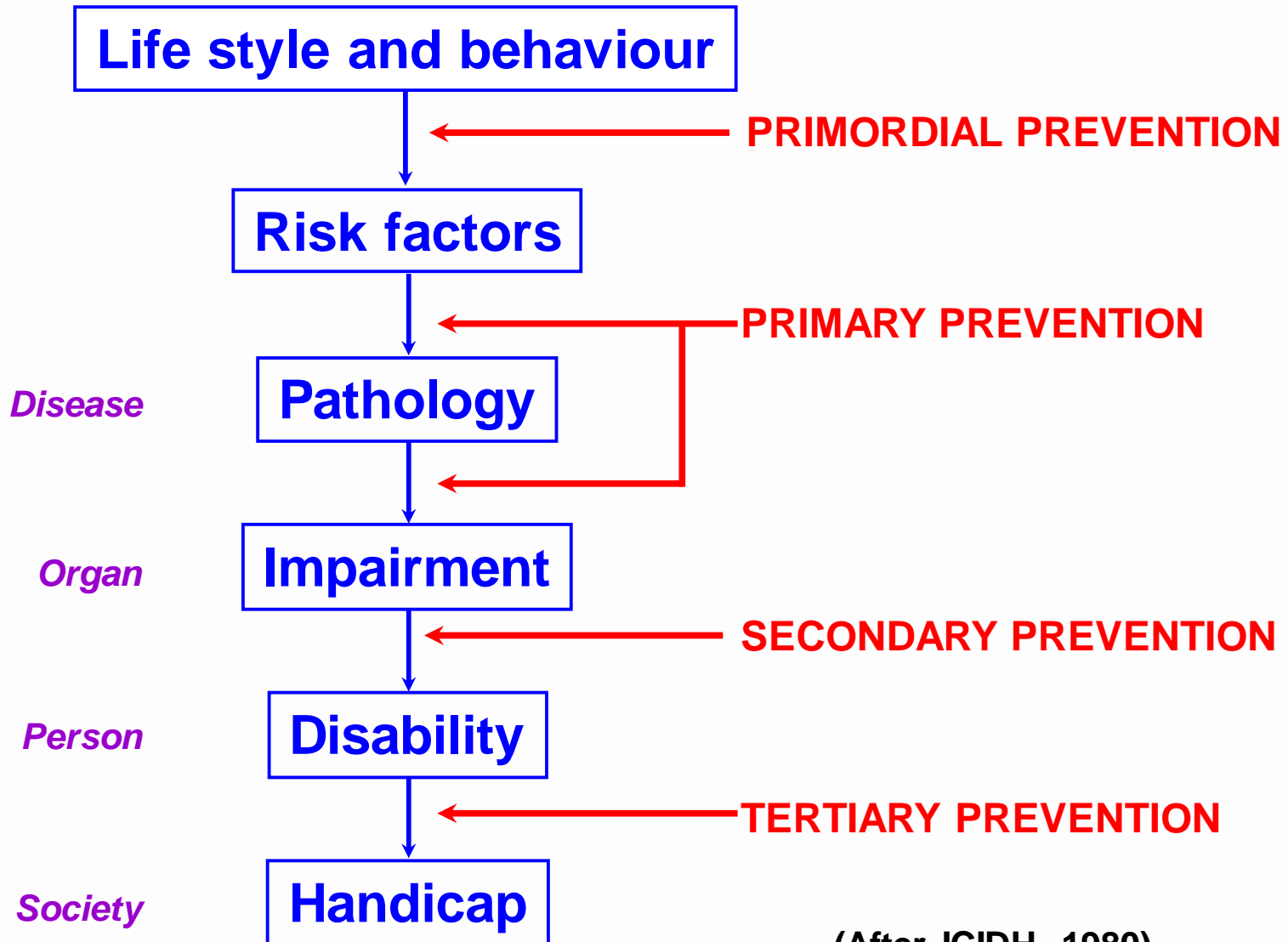
- **Public Health: Definition, characteristics, core actions**
- **Prevalence and burden of hearing loss**
- **Types of Prevention**
- **Interventions on route to prevention of hearing impairment.**

# LEVELS OF PREVENTION



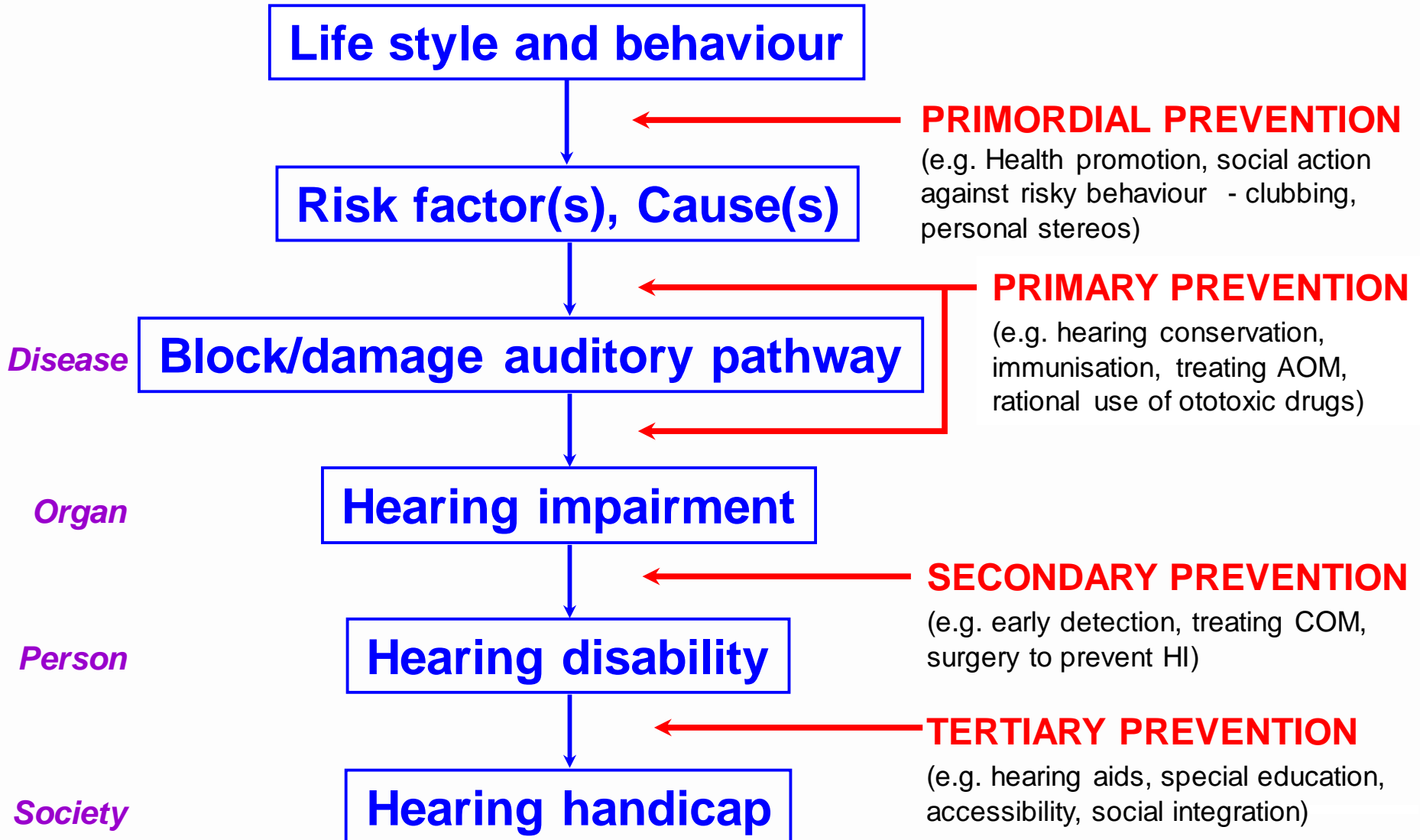
(After ICIDH, 1980)

# LEVELS OF PREVENTION



(After ICIDH, 1980)

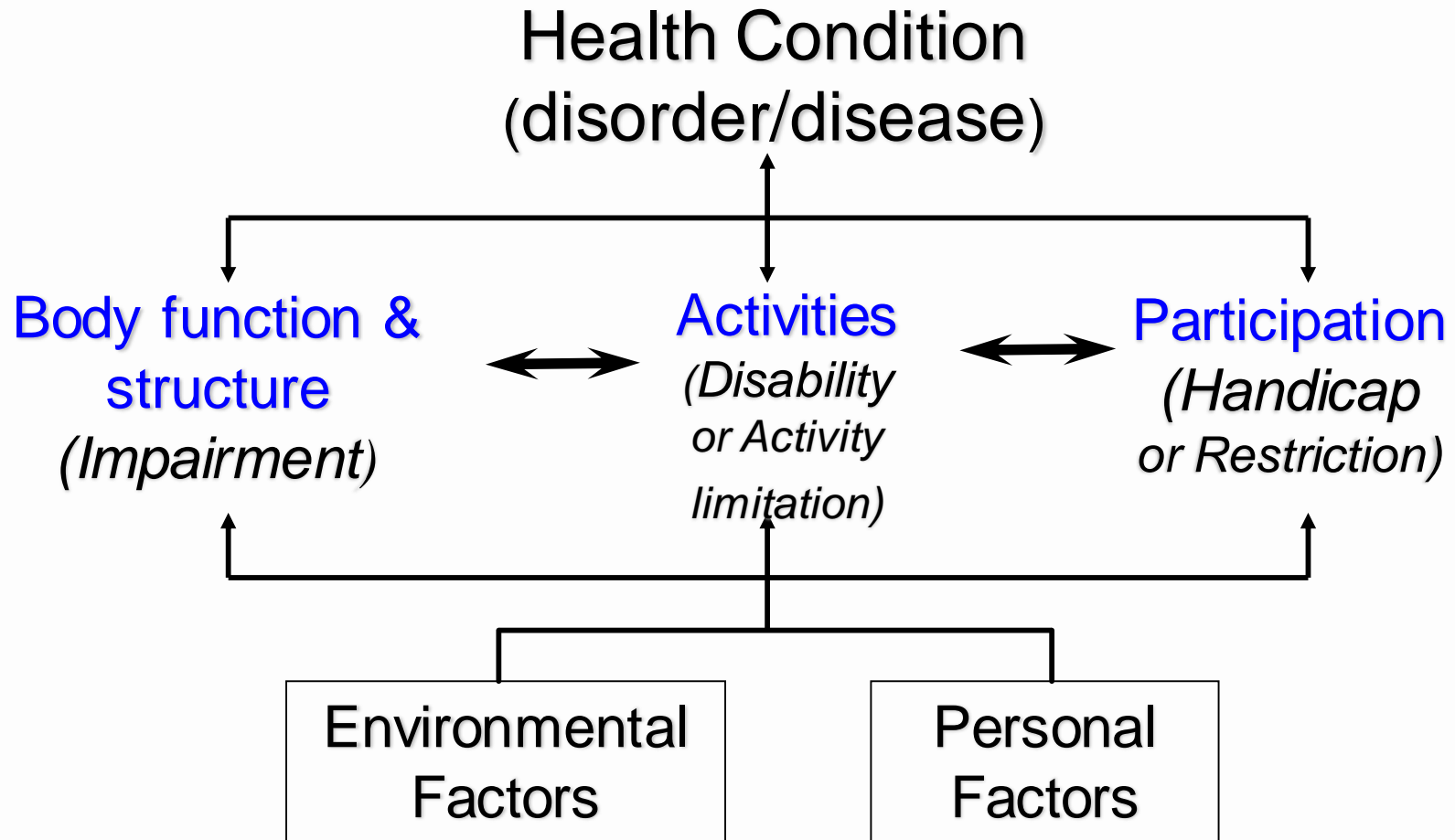
# CAUSATION MODEL FOR HEARING LOSS



(After ICIDH, 1980)

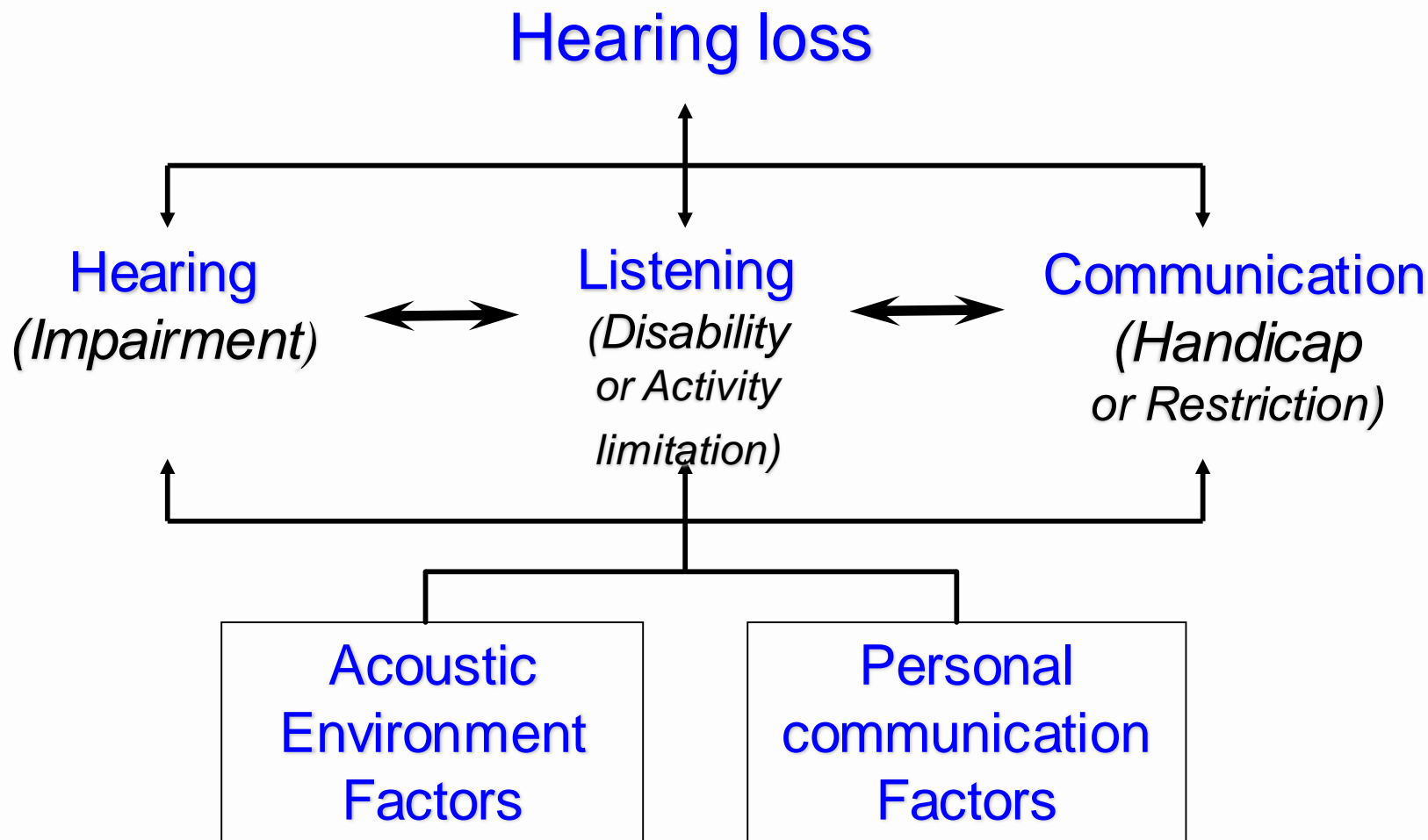
# Concepts in ICF 2001

(International Classification of Functioning, Disability & Health)



# Disease Model according to ICF

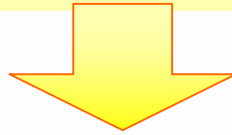
(International Classification of Functioning, Disability & Health)



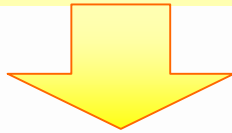


# ROUTE TO PREVENTION OF DEAFNESS AND HEARING IMPAIRMENT

Develop a public health orientation



Find ways to make a difference in a population



Target conditions with...

(1) High Prevalence  
+  
(2) Effective Means of  
Prevention / Control

To encourage resource allocation, interventions must also be cost-effective

# **SOLUTION:**

**Develop public health interventions that are cost-effective**



## ANALYSIS

---

### What are the priorities for prevention and control of non-communicable diseases and injuries in sub-Saharan Africa and South East Asia?

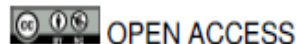
Last year's UN high level meeting sought to galvanise the international community into scaling up its response to the escalating global burden of non-communicable diseases. With resources tight, D Chisholm and colleagues examine which interventions should be given priority for action and investment

D Chisholm *health economist*<sup>1</sup>, R Baltussen *senior scientist*<sup>2</sup>, D B Evans *director*<sup>1</sup>, G Ginsberg *health economist*<sup>3</sup>, J A Lauer *economist*<sup>1</sup>, S Lim *associate professor*<sup>4</sup>, M Ortegón *researcher*<sup>5</sup>, J Salomon *associate professor*<sup>6</sup>, A Stanciole *economist*<sup>7</sup>, T Tan-Torres Edejer *team coordinator*<sup>1</sup>

<sup>1</sup>Department of Health Systems Financing, World Health Organization, Geneva, Switzerland; <sup>2</sup>Department of Primary and Community Care, Radboud University, Netherlands; <sup>3</sup>Department of Medical Technology Assessment, Ministry of Health, Jerusalem, Israel; <sup>4</sup>Institute for Health Metrics and Evaluation, University of Washington, Seattle, WA, USA; <sup>5</sup>School of Medicine, Universidad del Rosario, Bogotá, Colombia; <sup>6</sup>Department of Global Health and Population, Harvard School of Public Health, Boston, USA; <sup>7</sup>World Bank, Washington, DC, USA

## RESEARCH

# Cost effectiveness of strategies to combat vision and hearing loss in sub-Saharan Africa and South East Asia: mathematical modelling study



OPEN ACCESS

Rob Baltussen *senior researcher*<sup>1</sup>, Andrew Smith *honorary professor*<sup>2</sup>

<sup>1</sup>Department of Primary and Community Care, Radboud University Nijmegen Medical Center, PO Box 9101 6500HB Nijmegen, The Netherlands;

<sup>2</sup>Centre for Disability and Development, London School of Hygiene and Tropical Medicine, London, UK

## Abstract

**Objective** To determine the relative costs, effects, and cost effectiveness of selected interventions to control cataract, trachoma, refractive error, hearing loss, meningitis and chronic otitis media.

**Design** Cost effectiveness analysis of or combined strategies for

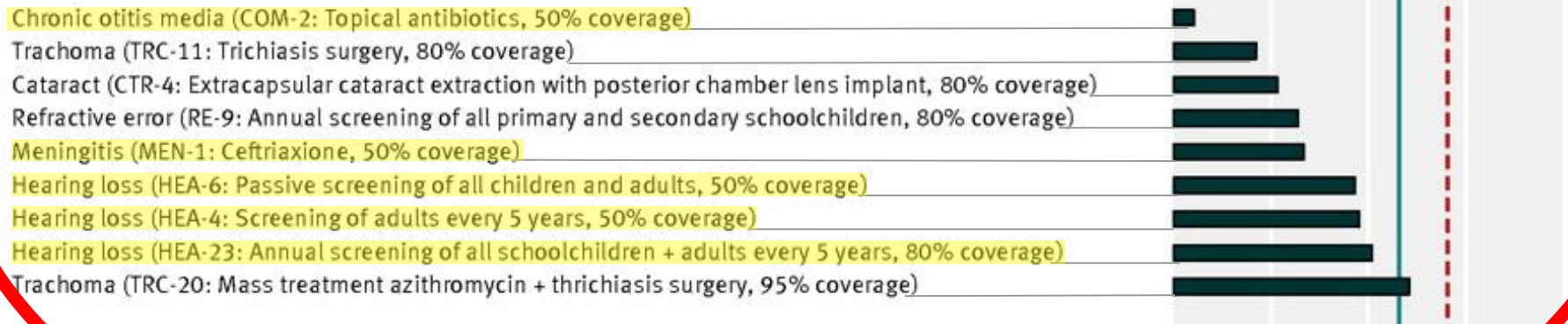
relation to the economic attractiveness of other, existing or new, interventions in health.

## Introduction

Throughout the world, loss of vision and hearing are a major

**Fig 1 Incremental cost effectiveness (\$Int/DALY saved) of dominant interventions in sub-Saharan African countries with high child and adult mortality**

**Sensory disorders**



## Sensory disorders

- Chronic otitis media (COM-2: Topical antibiotics, 50% coverage)
- Trachoma (TRC-11: Trichiasis surgery, 80% coverage)
- Cataract (CTR-4: Extracapsular cataract extraction with posterior chamber lens implant, 80% coverage)
- Refractive error (RE-9: Annual screening of all primary and secondary schoolchildren, 80% coverage)
- Meningitis (MEN-1: Ceftriaxone, 50% coverage)
- Hearing loss (HEA-6: Passive screening of all children and adults, 50% coverage)
- Hearing loss (HEA-4: Screening of adults every 5 years, 50% coverage)
- Hearing loss (HEA-23: Annual screening of all schoolchildren + adults every 5 years, 80% coverage)
- Trachoma (TRC-20: Mass treatment azithromycin + trichiasis surgery, 95% coverage)

## Cancers

- Cervical cancer (CVC-129: PAP smear at age 40 with lesion removal + cancer treatment, 50% coverage)
- Colorectal cancer (CRC-35: Treatment: surgery and/or chemotherapy and/or radiotherapy, 80% coverage)
- Cervical cancer (CVC-4: Treatment: surgery and/or chemotherapy and/or radiotherapy, 95% coverage)
- Cervical cancer (CVC-51: PAP smear at age 40 + waning HPV at age 12 (\$0.60 per dose) + treatment, 95% coverage)
- Cervical cancer (CVC-35: VIA at age 40 + waning HPV at age 12 (\$0.60 per dose) + treatment, 95% coverage)
- Cervical cancer (CVC-49: VIA (35, 40, 45) + waning HPV at age 12 (\$0.60 per dose) + treatment, 95% coverage)
- Breast cancer (BRC-6: Optimal programme, 50% coverage)
- Colorectal cancer (CRC-18: Colonoscopy at age 50 and surgical removal of polyps + treatment, 95% coverage)
- Cervical cancer (CVC-37: PAP (5, 20, 65) + waning HPV at age 12 (\$0.60 per dose) + treatment, 95% coverage)
- Colorectal cancer (CRC-14: Colonoscopy every 10 years and surgical removal of polyps + treatment, 95% coverage)
- Cervical cancer (CVC-34: PAP (5, 20, 65) + waning HPV at age 12 (\$0.60 per dose) + treatment, 95% coverage)
- Colorectal cancer (CRC-15: Sigmoidoscopy (5 yearly) + annual FOB + removal of polyps + treatment, 95% coverage)
- Cervical cancer (CVC-33: PAP (1, 20, 65) + waning HPV at age 12 (\$0.60 per dose) + treatment, 95% coverage)
- Cervical cancer (CVC-39: PAP (1, 20, 30) and PAP/HPV (1, 30, 65) + waning HPV + treatment, 95% coverage)

## Cardiovascular disease, diabetes, tobacco use

- CVD (11: Preventive multidrug treatment >35% risk of CVD event)
- CVD (77: Preventive multidrug treatment >35% risk + multidrug treatment of post acute IHD and stroke + diuretics/exercise for CHF)
- CVD (78: Preventive multidrug treatment >35% risk + multidrug treatment of acute MI + post acute IHD and stroke + diuretics/exercise for CHF)
- Tobacco (TOB-2: Increased taxation)
- Diabetes (DM-4: Retinopathy screening + photocoagulation, 80% coverage)
- CVD (73: Preventive multidrug treatment >25% risk + multidrug treatment of acute MI + post acute IHD and stroke + diuretics/exercise for CHF)
- Tobacco (TOB-15: Tax increase + ad ban + clean indoor air)
- Tobacco (TOB-27: Tax increase + ad ban + clean indoor air + information/labelling)
- CVD (8: Preventive multidrug treatment >5% risk of CVD event)
- Diabetes (DM-6: Standard glucose control + retinopathy, 80% coverage)
- Diabetes (DM-8: Intensive glucose control + retinopathy, 80% coverage)
- Tobacco (TOB-36: Tax increase + ad ban + clean indoor air + information/labelling + counselling)

## Respiratory disorders

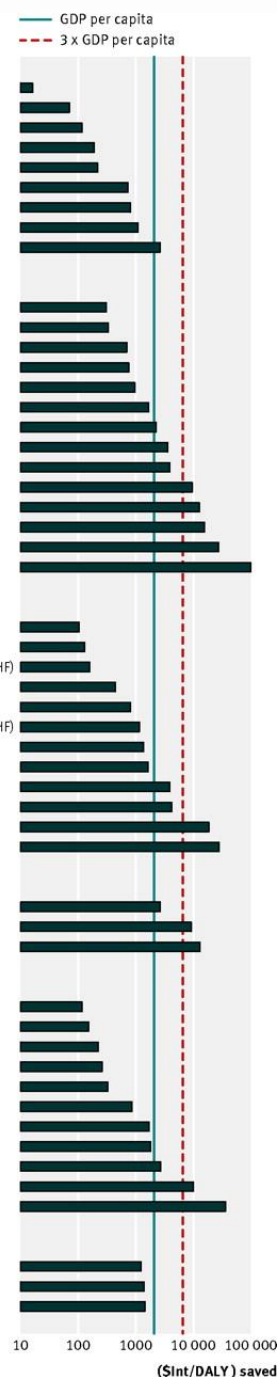
- Asthma (AST-1: Low dose inhaled corticosteroids for mild cases, 80% coverage)
- Asthma (AST-2: Low dose inhaled corticosteroids + long acting  $\beta$  agonists for moderate cases, 80% coverage)
- Chronic obstructive pulmonary disease (COPD-3: Inhaled bronchodilator (stage II) 80% coverage)

## Mental disorders

- Alcohol (ALC-3: Increased taxation (current + 50%))
- Alcohol (ALC-9: Increased tax and scaled up tax enforcement)
- Alcohol (ALC-15: Increased tax + reduced access + tax enforcement)
- Epilepsy (EPI-1: Older anti-epileptic drug in primary care at 50% coverage)
- Epilepsy (EPI-2: Older anti-epileptic drug in primary care at 80% coverage)
- Depression (DEP-2: Episodic treatment: newer antidepressant drug (SSRIs), 50% coverage)
- Depression (DEP-7: Maintenance psychosocial treatment + newer antidepressant drug, 50% coverage)
- Bipolar disorder (BIP-1: Older mood stabiliser drug (lithium), 50% coverage)
- Schizophrenia (SCZ-3: Older antipsychotic drug + psychosocial treatment, 80% coverage)
- Bipolar disorder (BIP-2: Older mood stabiliser drug (lithium) + psychosocial care, 50% coverage)
- Schizophrenia (SCZ-4: Newer antipsychotic drug + psychosocial treatment, 80% coverage)

## Injuries (road traffic)

- RTI-5: Legislation and enforcement of bicycle helmet use, 80% coverage
- RTI-9: Speed cameras + breath testing + motorcycle helmets, 80% coverage
- RTI-13: Seatbelts + motorcycle helmets + bicycle helmets + speed cameras + breath testing, 80% coverage



**Incremental cost effectiveness (\$Int/DALY saved) of dominant interventions in sub-Saharan African countries with high child and adult mortality**

Chisholm D et al.  
BMJ 2012;344:bmj.e586

# **SOLUTION:**

## **Public health, cost-effective interventions**

- (1) Primary ear and hearing care**
- (2) Provide affordable hearing aids on a massive scale**
- (3) Global & National programmes to reduce burden of hearing loss**
- (4) Training for programme planning**

***Is there evidence of cost-effectiveness?***

**Report of the**

**INTERNATIONAL WORKSHOP  
ON  
PRIMARY EAR AND HEARING CARE**



**Cape Town, South Africa**

**12-14 March 1998**

*Co-sponsored by*

**The WHO Regional Office for Africa, Harare, Zimbabwe**

**Prevention of Blindness and Deafness, WHO, Geneva, Switzerland**

**The University of Cape Town, South Africa**



**WORLD HEALTH ORGANIZATION**



# WHO International Workshop on Primary Ear and Hearing Care CAPE TOWN 1998

## ***1.5 Primary Health Care***

Early identification and treatment of ear disease and hearing impairment are most appropriately and cost-effectively undertaken as part of Primary Health Care.

## ***1.6 Training for Primary Ear and Hearing Care***

A module of training for Primary Ear and Hearing Care including communication strategies should be incorporated into all training programmes for primary health care workers. These modules should be appropriate for the level of knowledge and skill of the health worker (see Box 1). Trainers and the trained should be enabled to feel a sense of ownership of the training protocols. Guidelines should be developed for establishing individual country training programmes.

Extract from the Summary, “The Cape Town Declaration”



Trainer's manual – Intermediate level

Primary  
EAR AND HEARING  
Training

Advanced level

Primary  
EAR AND HEARING CARE  
Training Resource

Trainer's manual – Intermediate level

Primary  
EAR AND HEARING CARE  
Training Resource

Primary  
EAR AND HEARING CARE



World Health Organization



CBM  
Christoffel-Blindenmission  
Christian Blind Mission

PEHC on the web:

[http://www.who.int/pbd/deafness/activities/hearing\\_care/en/index.html](http://www.who.int/pbd/deafness/activities/hearing_care/en/index.html)

# Effects

- Dissemination of PEHC knowledge & skills
  - Most successful PDH publication, translated into Spanish, Chinese, Portuguese, French,
- Transfer of knowledge and skills through training
  - Launch & implementation workshops in Nigeria, Colombia, Burkina Faso
  - Use in training courses
- Implementation of PEHC and programmes for prevention of hearing loss in various countries forms foundation of new WHO-PDH work plan.

# **SOLUTION:**

## **Public health, cost-effective interventions**

- (1) Primary ear and hearing care**
- (2) Provide affordable hearing aids on a massive scale**
- (3) Global & National programmes to reduce burden of hearing loss**
- (4) Training for programme planning**

***Is there evidence of cost-effectiveness?***

# World Wide Hearing's Mission



**“A global initiative to prevent and reduce the burden of hearing loss in developing countries, in collaboration with the World Health Organization (WHO) and in line with the United Nations Millenium Development Goals”**



**make hearing matter**

# Providing Hearing Aids & Service



## How?

1. Sustainable delivery by local entrepreneurs
2. Located in traditional and community (mobile) clinics
3. Alternative distribution in shopping malls, telephone (audio) shops, etc.
4. Training and Quality control through a certified WWH accredited service
5. A 30 minute delivery model, called

HEARING  
express

**make hearing matter**

# **SOLUTION:**

## **Public health, cost-effective interventions**

- (1) Primary ear and hearing care**
- (2) Provide affordable hearing aids on a massive scale**
- (3) Global & National programmes to reduce burden of hearing loss**
- (4) Training for programme planning**

***Is there evidence of cost-effectiveness?***



- > For Students
- > For Staff
- > For Alumni
- > For Press



Search for research, people, courses &amp; more...

[STUDY](#) [FACULTIES](#) [RESEARCH](#) [ABOUT US](#) [NEWS & EVENTS](#) [Home](#) → [Study](#) → [CPD](#)

# Public Health Planning for Hearing Impairment

[Overview](#)[Print version](#)**Course Dates: 18 - 22 June 2012**

The LSHTM invites applications for their Short Course Public Health Planning for Hearing Impairment (formerly Community Ear and Hearing Health in Developing Countries). The aim of the course is to enable participants to understand the magnitude, causes, prevention and management of ear and hearing disorders in developing countries. The course will look to familiarise participants with public health approaches to ear and hearing care and explore planning principles to develop appropriate service delivery programmes.

This 5-day intensive course is aimed at Otolologists, Audiologists, Paediatricians and Allied professionals, especially in the communication sciences, health planners and NGO staff who intend to work in this field in a developing country, or are already doing so. Experts who come from or have lived and worked in developing countries will be the teaching the course, including using interactive and group work teaching methods.

## How to apply

Please follow this link to the [ONLINE APPLICATION FORM](#)

---

## Course directors

---

[Dr Daksha Patel](#)

---

[Professor Andrew Smith](#)

---

---

## Course dates

---

18 - 22 June 2012

---

---

## Extra Information

---

[2012 Course Leaflet \(PDF 1.46 MB\)](#)



# THEMES OF THE COURSE

- Public health planning & interventions
- Epidemiology and research training
- Causation and Prevention
- Early Detection
- Primary Ear and Hearing Care
- Rehabilitation, education, vocational training
- Raising Awareness and Mobilising Resources
- Global programmes
- Disability framework
- Planning a programme for ear and hearing health in the participant's own country.

# PARTICIPANTS

- Otologists, audiologists, paediatricians, speech-language therapists, nurses, allied professionals in health or communication sciences; health planners and managers.
- From the developing or developed world who work or intend to work in this field in a developing country.

# LONG-TERM STRATEGY FOR COURSE

- Develop cadre of persons in the developing world who can set up public-health interventions for prevention of hearing loss
- Add a new regional venue for course every year for 5 years.
  - 2012: London, Hyderabad, Cape Town.
  - 2013: 4 venues.
  - 2014: 5 venues.
- 2014: Masters in Disability Studies to include module on Public Health Planning for Hearing Impairment (PHPHI).



## Public Health Planning for Hearing Impairment - SHORT COURSE

Date: 26-30 November 2012

Location: University of Cape Town, South Africa

Cost: R 1250.00

The World Health Organization estimates that there are 278 million people in the world with disabling hearing loss. Two-thirds of these people live in developing countries.

**COURSE AIMS:** To understand the magnitude and causes of hearing impairment and explore public health approaches for developing hearing health programmes in developing countries.

### This course is suitable if you:

- Are an **Otolaryngologist, Audiologist, Paediatrician or allied health professional**, especially in the communication sciences, or **public health planner** or an NGO staff member.
- Have an interest in the developing world.
- Are interested in establishing, continuing or resuming a career in ear and hearing health in the developing world.
- Have an interest in the planning principles involved in establishing public health programmes for ear and hearing health in the developing world.
- Are interested in working in partnership with developing world practitioners.

If you would like to apply to attend this short course **please complete the application form** below and return by email to [Belinda.chapman@uct.ac.za](mailto:Belinda.chapman@uct.ac.za)

### Teaching

The course will be taught by experts who come from or who have lived and worked in developing countries.

### Course Fees

The course registration fee is R 1250.00.

### Accommodation

Limited university accommodation may be booked at a preferential rate if you apply before the end of June.

### Scholarships

A number of full and part scholarships are available to students who would not otherwise be able to attend the course. These need to be applied for and are at the discretion of the course organisers.

## Application Form

Personal information			
Title		Surname/family name	
First name(s)		Gender	
Date of birth		Nationality	
Country of birth		Country of domicile	
Contact details			
Home address		Postcode	
		Country	
Email address		Telephone	
Mobile		Fax	

Please list your main degrees or qualifications held			
Year of award	Institution	Name of course	Qualification
Work experience			
Please give a brief description of your current or most recent work experience			
Employer			
Position held			
Start date		End date	
Please provide a brief description of the work involved below			
Why do you wish to attend this course? (max. 300 words)			
Registration fee			
The fee for the course is R 1250. If payment is not received you will be withdrawn from the course. Please indicate whether you have arranged for a sponsor (such as your employer or your institution) to pay for your fee or if you will be self financing and paying the fee yourself. If a sponsor is paying your course fee please provide a confirmation letter from your sponsor with your application.			
Sponsor	<input type="checkbox"/> State name of sponsor _____		
Indicate what sponsorship will cover	Fee <input type="checkbox"/> Travel <input type="checkbox"/> Accommodation <input type="checkbox"/>		
Are you self financing? If yes what?	Fee <input type="checkbox"/> Travel <input type="checkbox"/> Accommodation <input type="checkbox"/>		
Applying for scholarship from course organiser for	Fee <input type="checkbox"/> Travel <input type="checkbox"/> Accommodation <input type="checkbox"/>		
Declaration			
By submitting this form I declare that the information given in this application is correct, complete and accurate and no information requested or other material information has been omitted.			
I have read, understood and will adhere to payment of a registration fee.			
I understand that the course may be cancelled two weeks before the first day of the course if numbers prove insufficient and in those circumstances full course fees will be refunded.			
By checking this box I agree to all the above <input type="checkbox"/>			



© WHO/Chris de Bode

Luciano dos Santos Rocha Junior, Sao Paulo Favela (slum), wearing his new hearing aids

# Thanks for listening!