

# Hearing loss in persons 65 years and older

based on

WHO global estimates on prevalence of hearing loss

Mortality and Burden of Diseases

and

Prevention of Blindness and Deafness

WHO, 2012

In 2012, WHO released new estimates on the magnitude of disabling hearing loss. The estimates are based on 42 population-based studies.

Global estimates for population above 65 years are as follows:

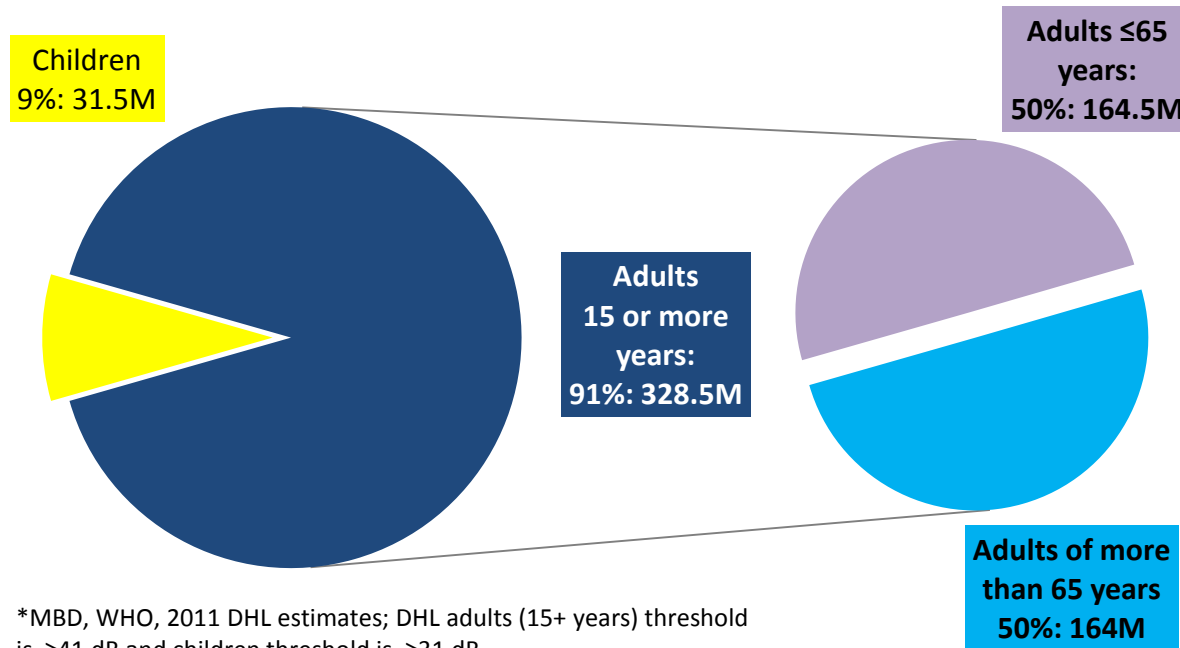
- There are 164.5 million persons of above 65 years with disabling hearing loss, i.e. 33% of the world's population above 65 years.
- Approximately one-third of persons above 65 years are affected by disabling hearing loss.
- The prevalence of disabling hearing loss in persons above 65 years is highest in Sub-Saharan Africa, Asia Pacific, and South Asia.
- In general lower the income, and the literacy of the region's population, higher is the prevalence of disabling hearing loss.

# Definition of disabling hearing loss

- Disabling hearing loss refers to hearing loss greater than 40 dB in the better hearing ear in adults (15 years or older) and greater than 30 dB in the better hearing ear in children (0 to 14 years).

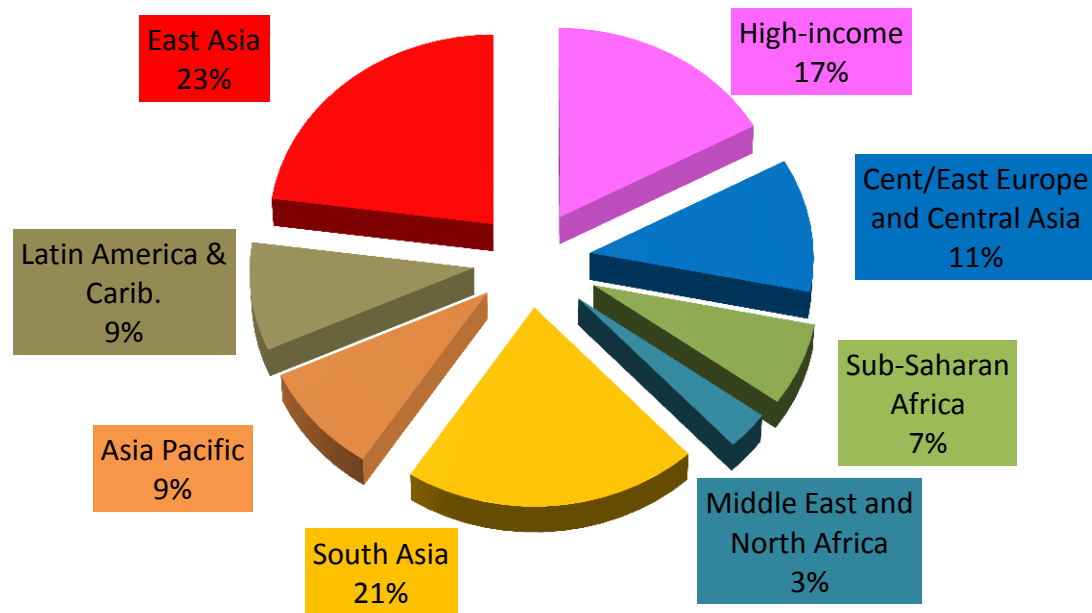
# Hearing loss: WHO global estimates

More than the half of the Adults with disabling hearing loss are adults of 65 years or older i.e. 164.5 millions.



\*MBD, WHO, 2011 DHL estimates; DHL adults (15+ years) threshold is  $\geq 41$  dB and children threshold is  $\geq 31$  dB.

# Disabling hearing loss in population above 65 years, is unequally distributed across the world



\*MBD, WHO, 2011 DHL estimates; DHL adult threshold is  $\geq 41$  dB, adults of 15 years or older.

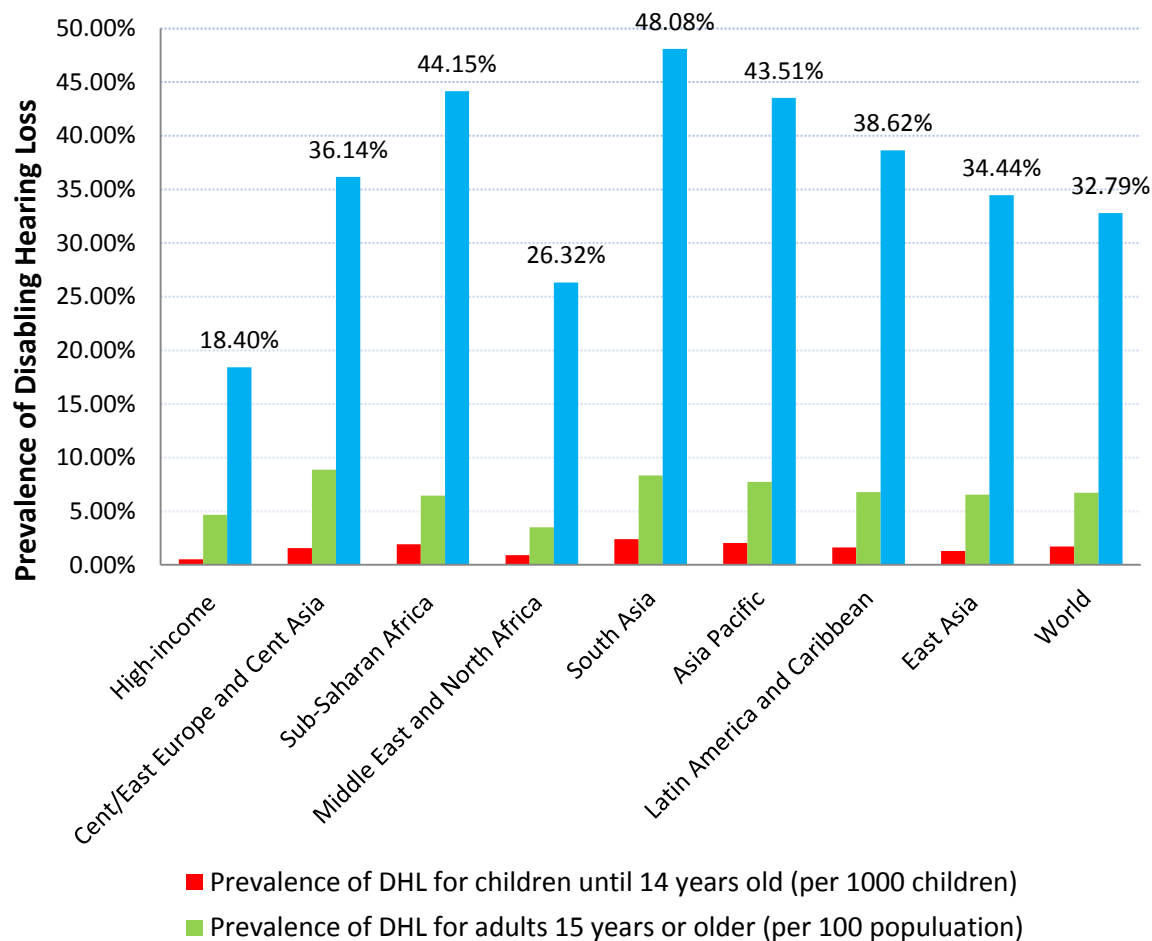
The prevalence of disabling hearing loss in adults aged 65 years or more is highest in Sub-Saharan Africa, South Asia, Asia Pacific. Prevalence in low and middle income countries is almost the twice the prevalence in the high income region.

Selected Regions	Adults Over 65 years Both sexes		Adults between 15 to 64 years Both sexes		All Adults (15 years or older) Both sexes	
	millions	prevalence (%)	millions	prevalence (%)	millions	prevalence (%)
High-income	28.1	18.4%	9.1	1.4%	37.2	4.7%
Central/Eastern Europe and Central Asia	18.4	36.1%	11.3	4.0%	29.6	8.9%
Sub-Saharan Africa	11.3	44.1%	19.1	4.3%	30.3	6.4%
Middle East and North Africa	5.2	26.3%	5.5	1.9%	10.7	3.5%
South Asia	34.4	48.1%	53.8	5.4%	88.1	8.3%
Asia Pacific	14.8	43.5%	18.6	4.7%	33.4	7.7%
Latin America and Caribbean	14.8	38.6%	13.2	3.5%	28.0	6.8%
East Asia	37.6	34.4%	33.6	3.4%	71.2	6.5%
World	164.5	32.8%	164.0	3.7%	328.5	6.7%

\*MBD, WHO, 2011 DHL estimates, where DHL adult threshold is  $\geq 41$  dB for adults of 15 years or older.

# Prevalence of disabling hearing loss for children, adults 15-65 years and adults above 65 years, by region.

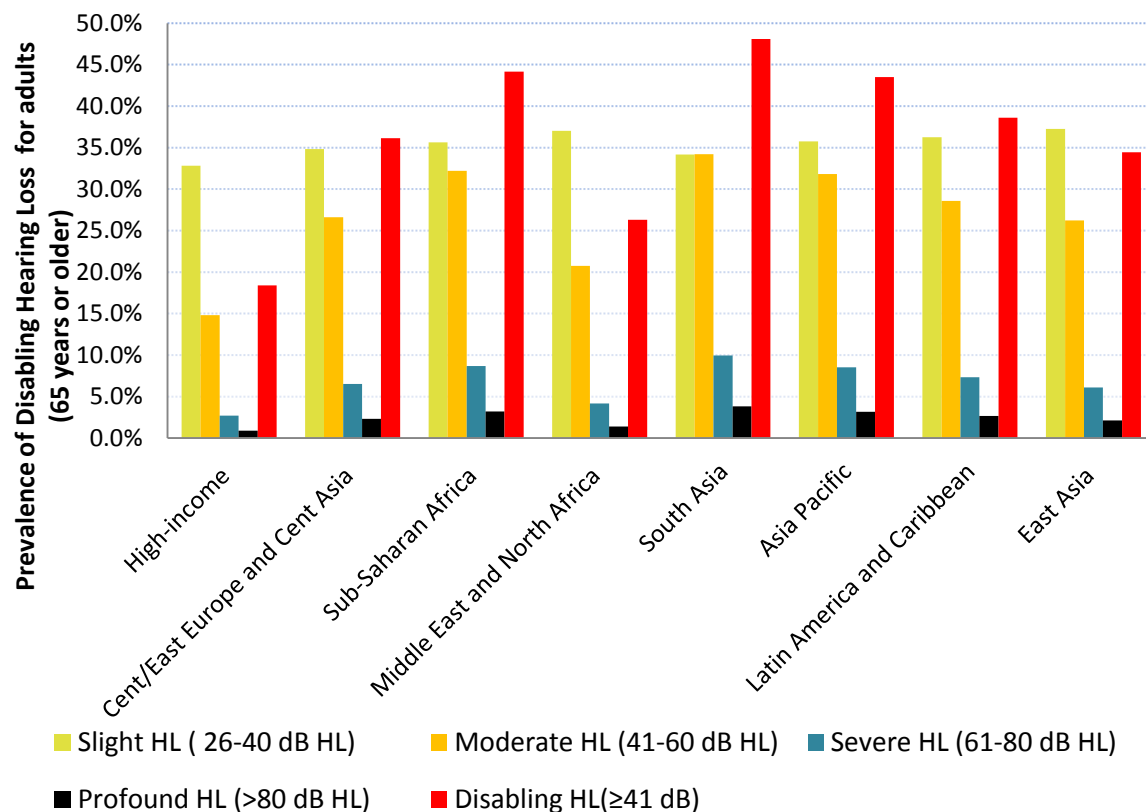
The prevalence in adults above 65 years could be up to 5 times higher, as compared to children and adults up to 65 years of age.



\*MBD, WHO, 2011 DHL estimates, where DHL adult threshold is  $\geq 41$  dB and children threshold is  $\geq 31$  dB (children 0 until 14 years old).

# Prevalence of hearing loss for adults above 65 years by degree of hearing loss, for selected regions.

Approximately 15% of the world's adult population has some degree of hearing loss, and 25% of them are aged above 65 years.

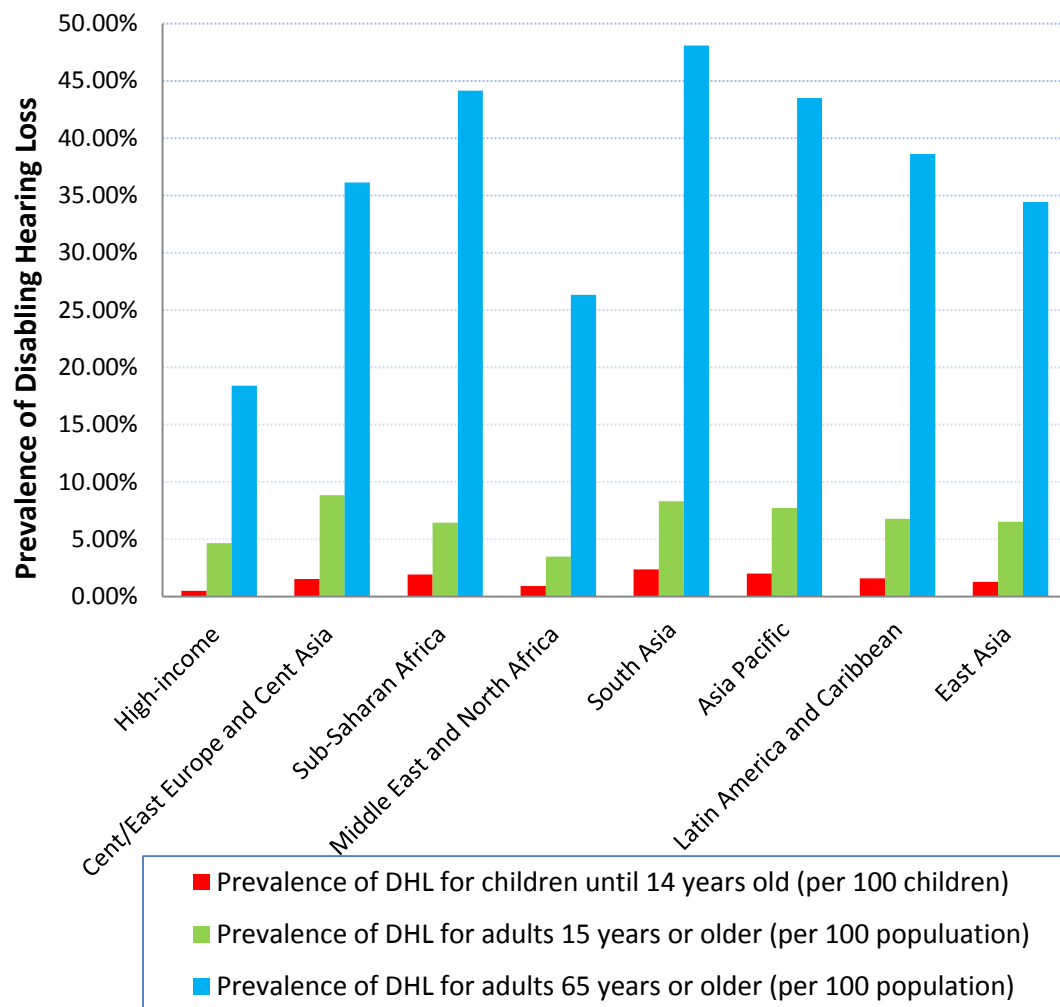


\* MBD, WHO, 2011 DHL estimates, where DHL adult threshold is  $\geq 41$  dB.



# Prevalence of disabling hearing loss for children, adults 15 years or older, and 65 years or older by selected regions.

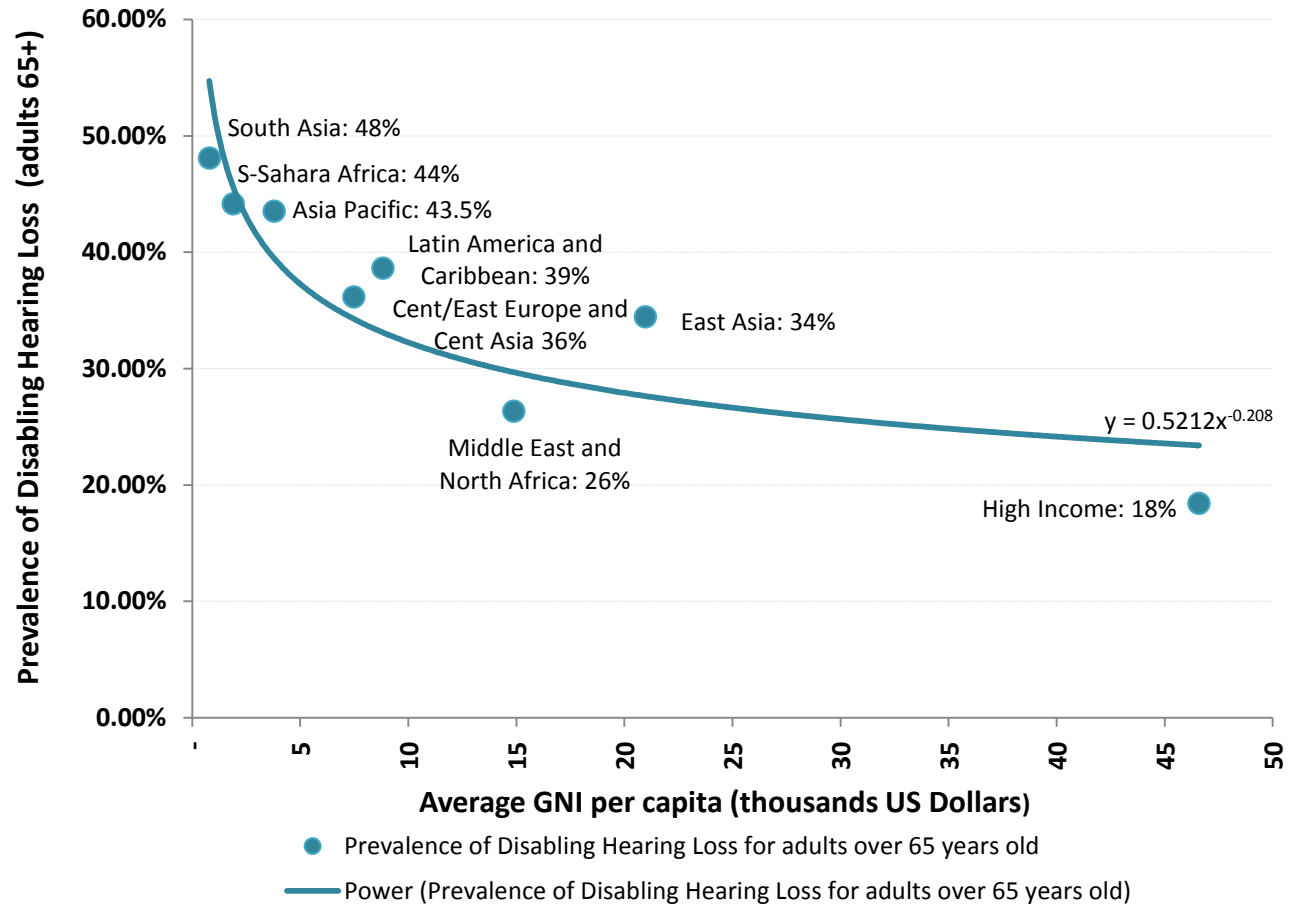
The prevalence increases with age, i.e. prevalence in children is 1.7%, in adults aged 15 years or more, it is around 7%, rapidly increasing to around one in three in adults older than 65 years.



\*MBD, WHO, 2011 DHL estimates, where DHL adult threshold is  $\geq 41$  dB and children threshold is  $\geq 31$  dB (children 0 until 14 years old).

# Prevalence of disabling hearing loss for adults (65 years or older) versus average GNI per capita for selected regions.

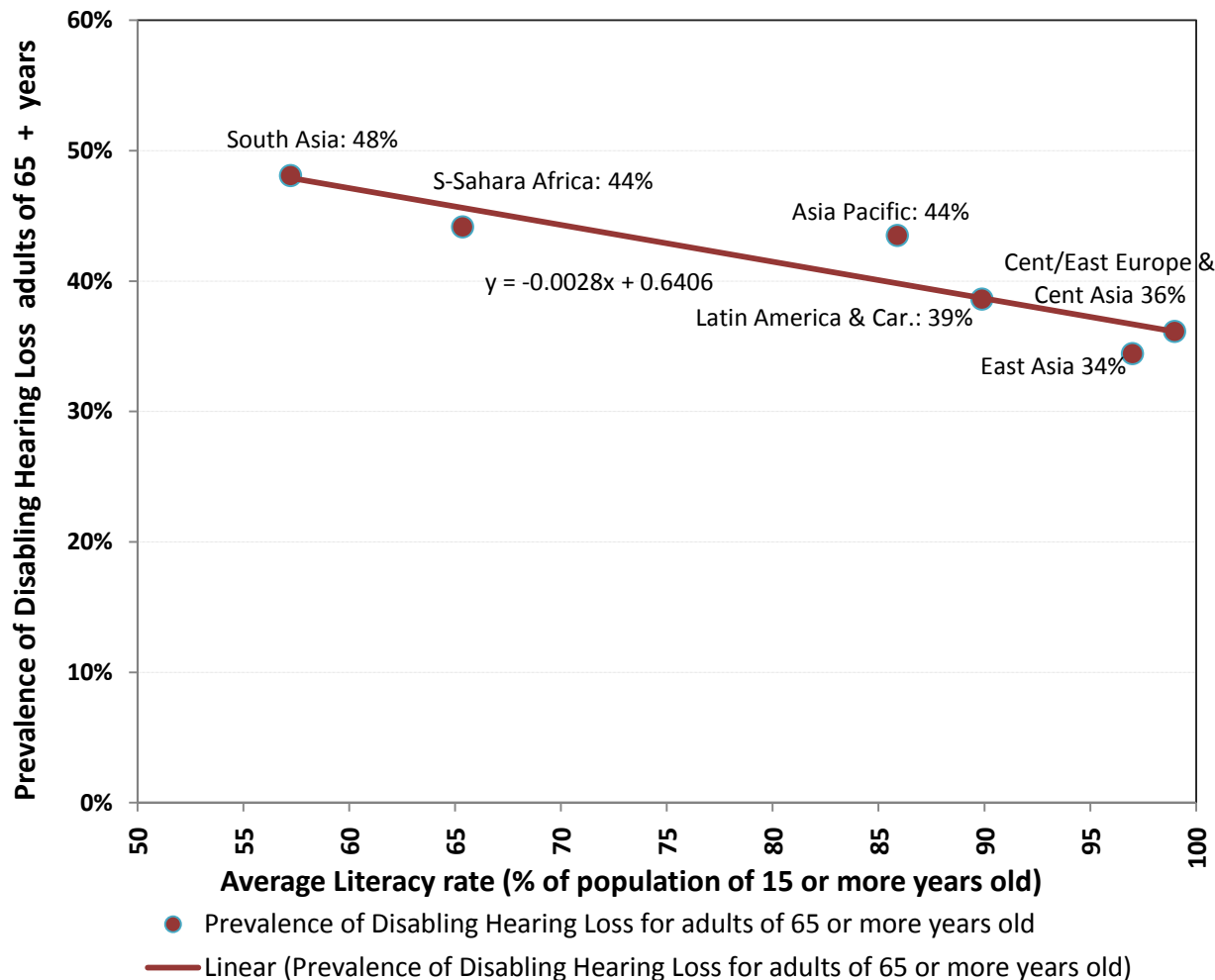
In adults of 65 years and older, prevalence decreases exponentially as income increases.



\*MBD, WHO, 2011 DHL estimates.

# Prevalence of Disabling Hearing Loss for people of above 65 years versus average adult literacy rate for low and middle income in selected regions.

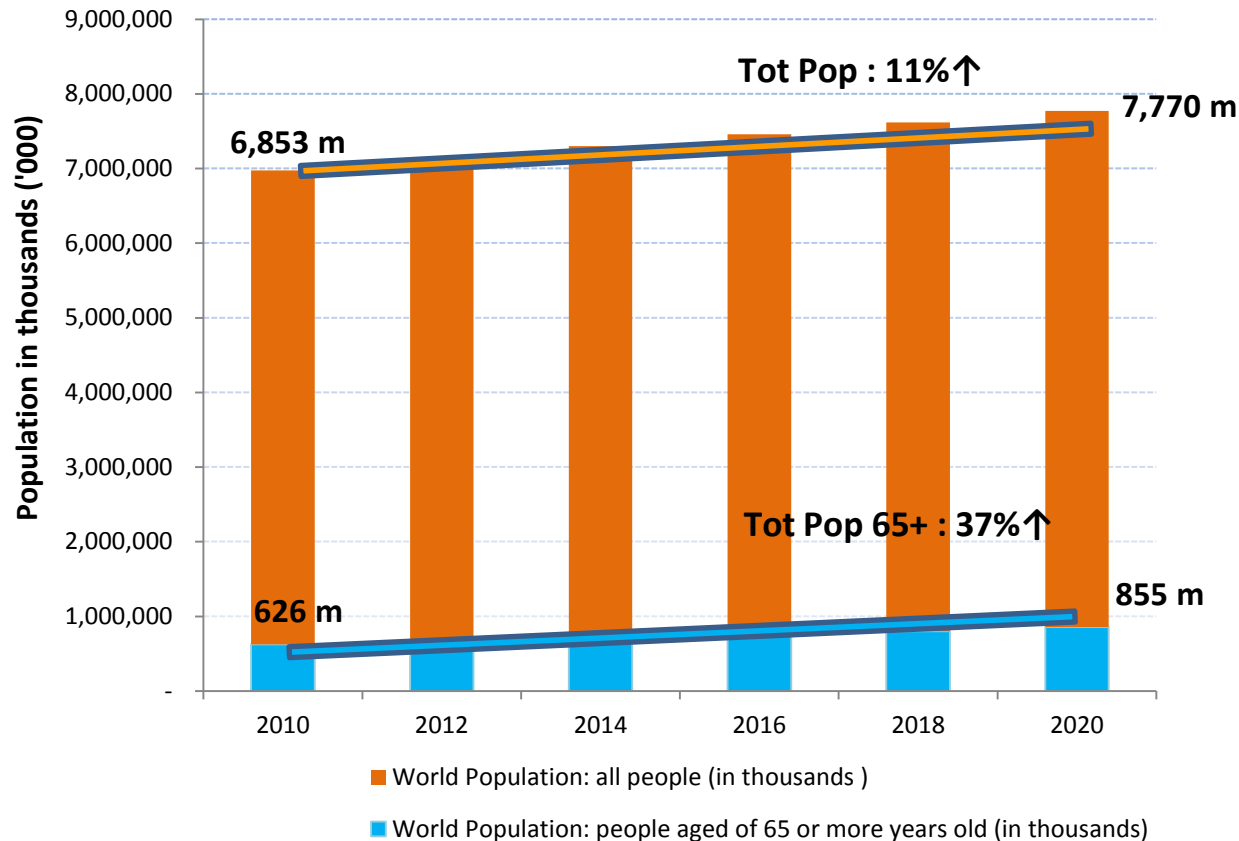
Hearing loss in adults of above 65 years decreases linearly as the adult literacy rate increases for selected low and middle income regions.



\*MBD, WHO, 2011 DHL estimates, where DHL children threshold is  $\geq 31$  dB.

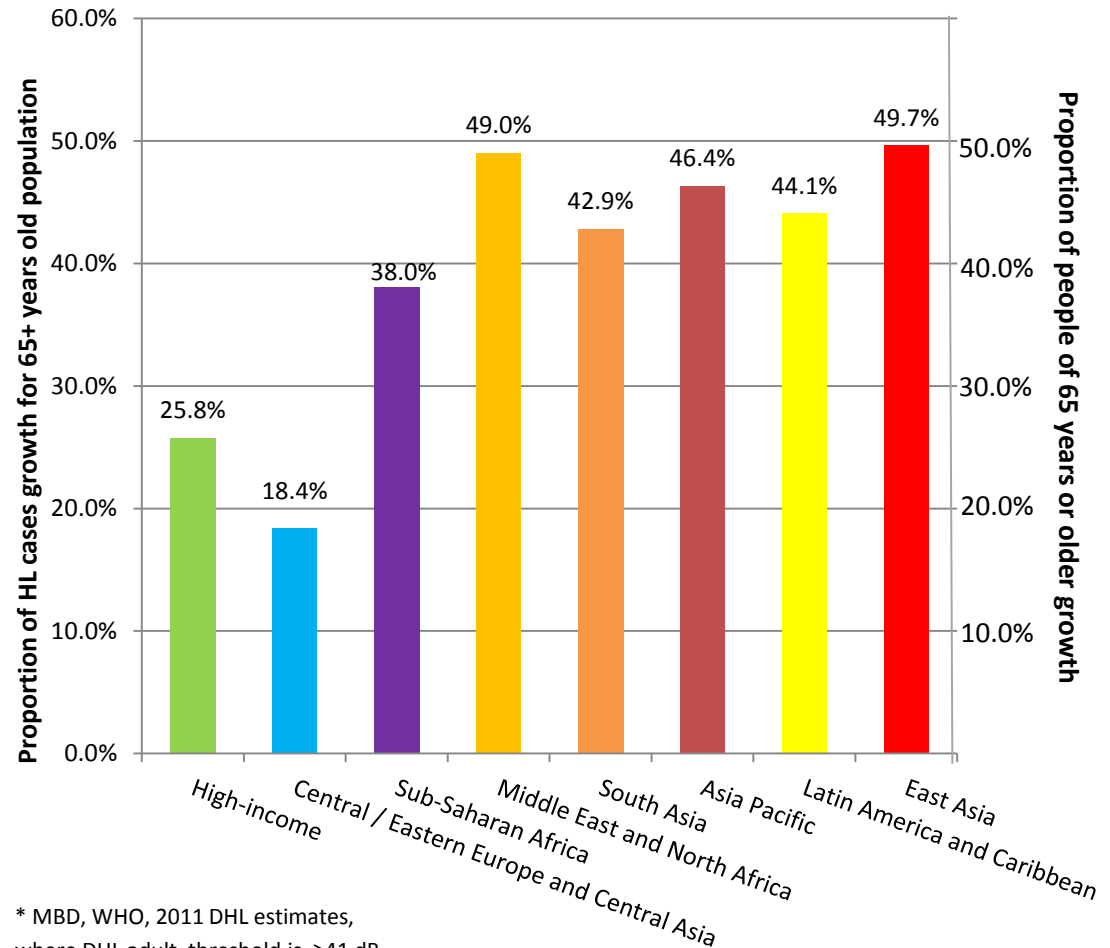
# World Population growth for all ages and people aged of 65 or more years old (2010-2020 in thousands '000)

\*Population will grow from 6,853 millions people to 7,770 million in the period 2010-2020 (growth 11%), and the people of 65 years or more will grow from 626 millions in 2010 to 855 millions in 2019 representing a growth of 37%.



# Percentage increase in number of persons (65 years or older) with hearing loss from 2010-2020.\*

Population of persons above 65 years old will increase from 2010-2020 in all regions with ranges going from 18.4% to 49.7%. Consequently, the number of persons with hearing loss will grow proportionately, due to population growth and ageing in all the selected regions.



\* MBD, WHO, 2011 DHL estimates, where DHL adult threshold is  $\geq 41$  dB.

\*: projections for a ten year period (2010-2020) assuming no change in current prevalence rates.

## Appendix: References and Indicators

Indicator	Source
<b>Hearing Loss Estimates MBD: All degrees of hearing loss for adults and children</b> <b>Population 2008 Estimates</b> <b>GNI per capita, Atlas method (current US \$ Dollars)</b> <b>Literacy rate, adult total (% of people ages 15 and above)</b>	WHO, 2011 Hearing Loss estimates *UNDP 2010 World Population Prospects **Worldbank Database 2008 **Worldbank Database 2009
*UNDP WPP available at: <a href="http://www.un.org/esa/population/">http://www.un.org/esa/population/</a> **Worldbank database available at: <a href="http://data.worldbank.org/">http://data.worldbank.org/</a>	

## A2: Selected Regions

Subregion	Countries
<b>East Asia region</b>	
East Asia	China, Hong Kong SAR (China), Macau SAR (China), Democratic People's Republic of Korea, Taiwan.
<b>Asia Pacific region</b>	
Southeast Asia	Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Maldives, Myanmar, Philippines, Sri Lanka, Thailand, Timor-Leste, Viet Nam.
Oceania	Cook Islands, Fiji, French Polynesia, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Vanuatu, Tuvalu and Niue.
<b>South Asia region</b>	
South Asia	Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan
<b>Central / Eastern Europe and Central Asia region</b>	
Central Asia	Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Mongolia, Tajikistan, Turkmenistan, Uzbekistan.
Central Europe	Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Hungary, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, Macedonia (Former Yugoslav Republic of).
Eastern Europe	Belarus, Estonia, Latvia, Lithuania, Moldova, Russian Federation, Ukraine.
<b>Middle East and North Africa region</b>	
North Africa and Middle East	Algeria, Bahrain, Egypt, Iran (Islamic Republic of), Iraq, Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Morocco, Occupied Palestinian Territory, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia, Turkey, United Arab Emirates, Yemen.
<b>Sub-Saharan Africa region</b>	
Central Africa	Angola, Central African Republic, Congo, Democratic Republic of the Congo, Equatorial Guinea, Gabon.
East Africa	Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Rwanda, Seychelles, Somalia, Sudan, Uganda, United Republic of Tanzania, Zambia.
Southern Africa	Botswana, Lesotho, Namibia, South Africa, Swaziland, Zimbabwe.
West Africa	Benin, Burkina Faso, Cameroon, Cape Verde, Chad, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, São Tomé and Príncipe, Togo.
<b>Latin America and Caribbean region</b>	
Andean Latin America	Bolivia, Ecuador, Peru.
Central Latin America	Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Venezuela (Bolivarian Rep. of).
Southern Latin America	Argentina, Chile, Uruguay.
Tropical Latin America	Brazil, Paraguay.
Caribbean	Antigua and Barbuda, Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Netherlands Antilles, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago.
<b>High-income region</b>	
Asia-Pacific	Brunei Darussalam, Japan, Republic of Korea, Singapore.
Australasia	Australia, New Zealand.
North America	Canada, United States of America.
Western Europe	Andorra, Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Greenland, Iceland, Ireland, Israel, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, Monaco and San Marino.