

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.

Estimates are as follows:

- There are 360 million persons in the world with disabling hearing loss (5.3% of the world's population).
- 328 million (91%) of these are adults (183 million males, 145 million females)
- 32 (9%) million of these are children.
- The prevalence of disabling hearing loss in children is greatest in South Asia, Asia Pacific and Sub-Saharan Africa.
- Approximately one-third of persons over 65 years are affected by disabling hearing loss.
- The prevalence of disabling hearing loss in adults over 65 years is highest in South Asia, Asia Pacific and Sub-Saharan Africa.

Regions, are as identified by the Institute of Health Matrix and Evaluation's 2010 GBD estimates study.

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).

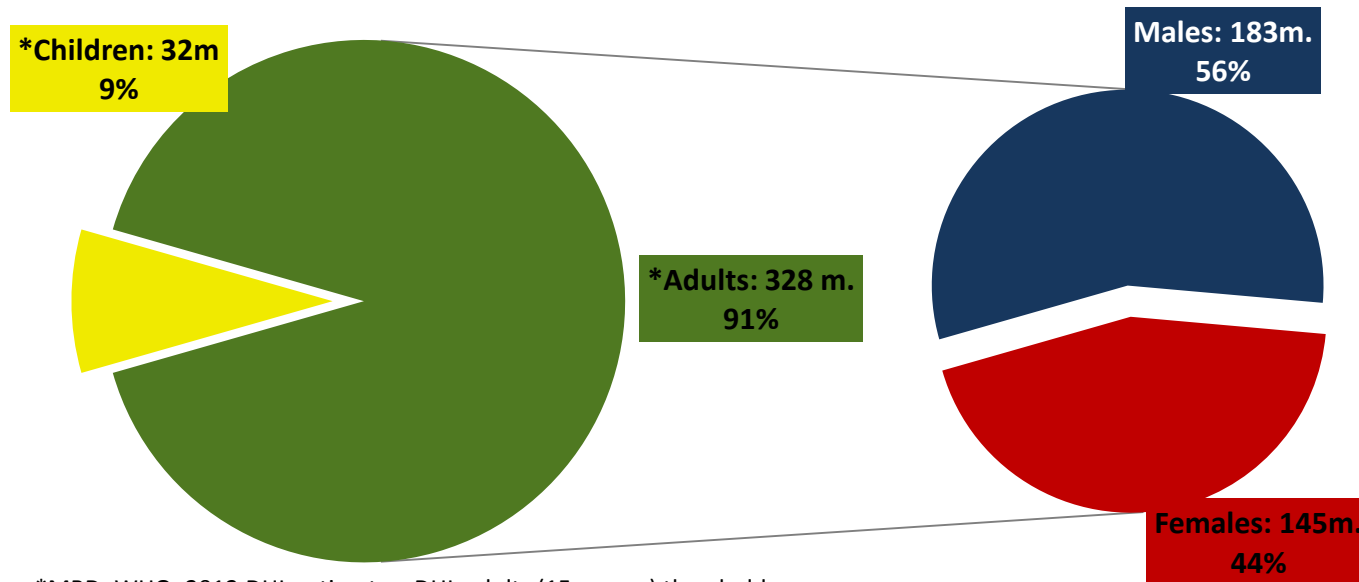
Details of Selected Regions

Subregion	Countries
East Asia region	
East Asia	China, Hong Kong SAR (China), Macau SAR (China), Democratic People's Republic of Korea, Taiwan.
Asia Pacific region	
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.
South Asia region	
South Asia	Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan
Central / Eastern Europe and Central Asia region	
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.
Middle East and North Africa region	
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.
Sub-Saharan Africa region	
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.
Latin America and Caribbean region	
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.
High-income region	
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.

Data sources

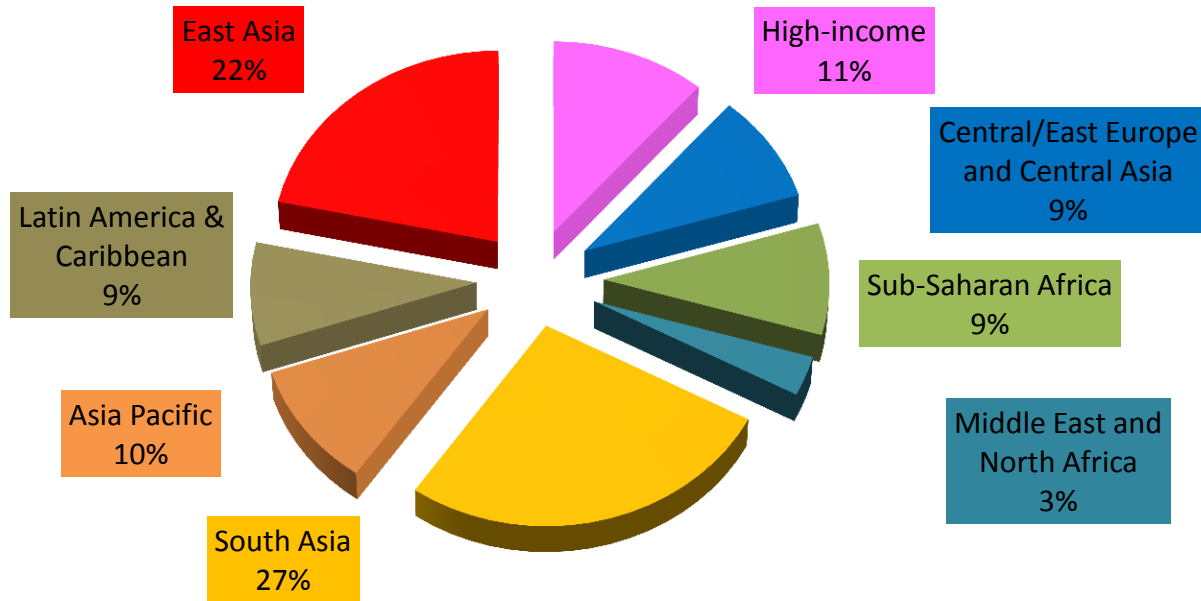
Indicator	Source
Hearing Loss Estimates MBD: All degrees of hearing loss for adults and children	WHO, 2012 Hearing Loss estimates
Population 2008 Estimates	*UNDP 2010 World Population Prospects
GNI per capita, Atlas method (current US \$ Dollars)	**Worldbank Database 2008
Literacy rate, adult total (% of people ages 15 and above)	**Worldbank Database 2009
*UNDP WPP available at: http://www.un.org/esa/population/ **Worldbank database available at: http://data.worldbank.org/	

Prevalence of hearing loss: WHO global estimates



*MBD, WHO, 2012 DHL estimates; DHL adults (15+ years) threshold is ≥ 41 dB and children threshold is ≥ 31 dB.

Disabling hearing loss is unequally distributed across the world



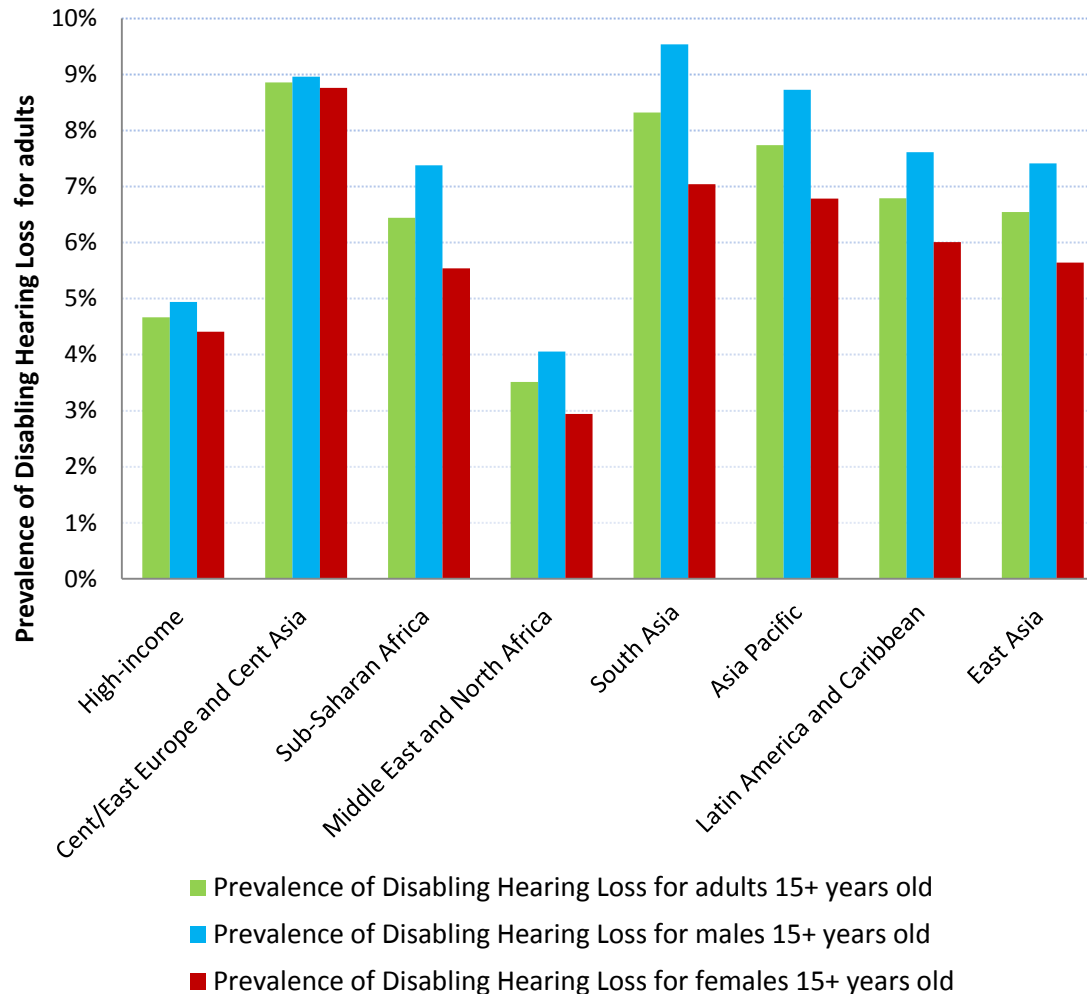
MBD, WHO, 2012 DHL estimates; DHL adult threshold is ≥ 41 dB, adults of 15 years or older.

Selected Regions	DHL in children		DHL in adults			
	Both sexes		Males		Females	
	millions	prevalence (%)	millions	prevalence (%)	millions	prevalence (%)
High-income	0.8	0.5	19	4.9	18	4.4
Central/Eastern Europe and Central Asia	1.1	1.6	14	9.0	16	8.8
Sub-Saharan Africa	6.8	1.9	17	7.4	13	5.5
Middle East and North Africa	1.2	0.9	6	4.1	4	2.9
South Asia	12.3	2.4	52	9.5	36	7.0
Asia Pacific	3.4	2.0	19	8.7	15	6.8
Latin America and Caribbean	2.6	1.6	15	7.6	13	6.0
East Asia	3.6	1.3	41	7.4	30	5.6
World	31.9	1.7	183	7.5	145	5.9

MBD, WHO, 2012 DHL estimates

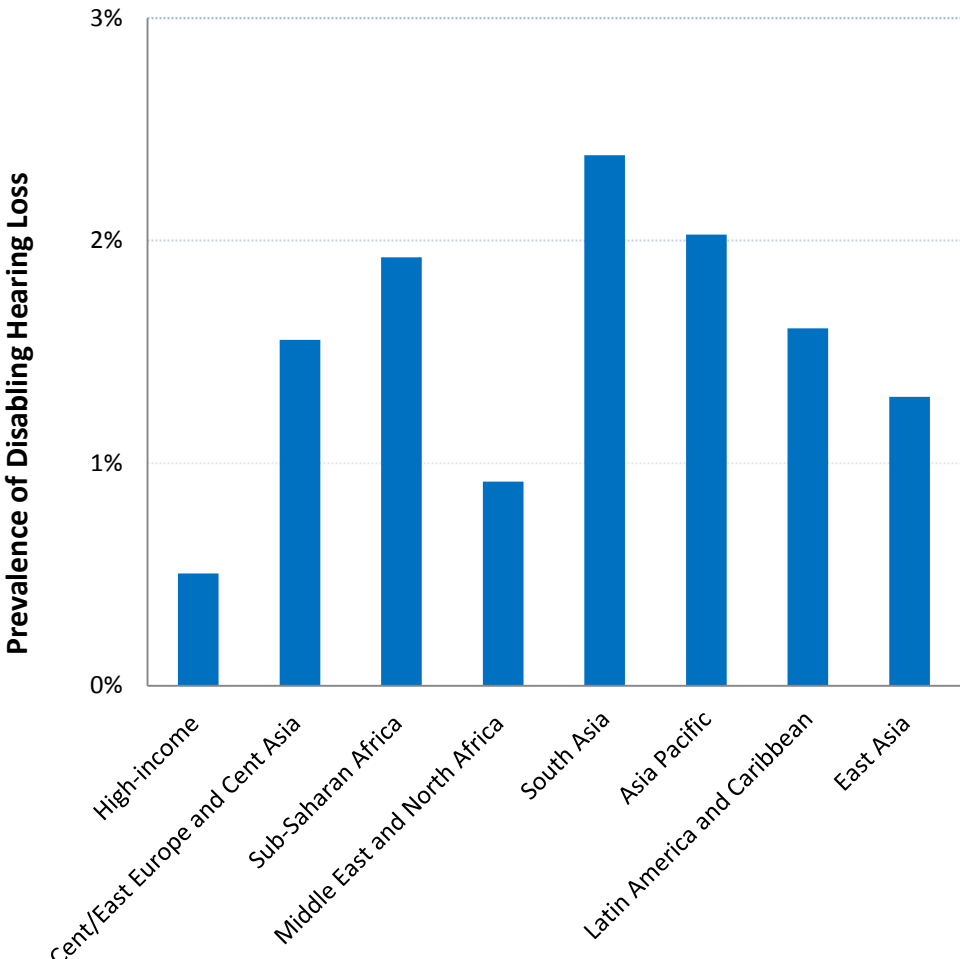
Prevalence of disabling hearing loss in some regions is nearly double that of the high income region.

Prevalence of disabling hearing loss for adults by region:



*MBD, WHO , 2012, DHL estimates, where DHL adult threshold is ≥ 41 dB HL

Prevalence of disabling hearing loss in children:

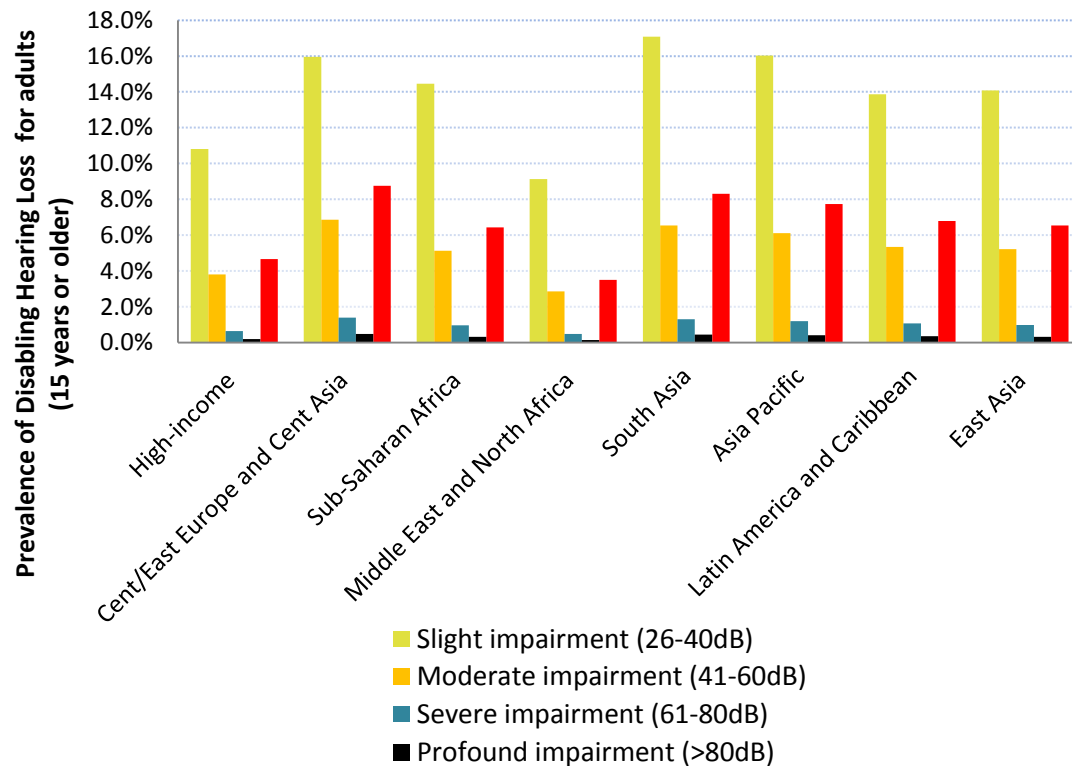


*MBD, WHO, 2012 DHL estimates, where DHL children threshold is ≥ 31 dB

The prevalence for disabling hearing loss in children is highest in the south Asia region followed by Sub-Saharan Africa. There is a marked difference in the prevalence rates in high income parts of the world.

Prevalence of hearing loss for adults by degree of hearing loss:

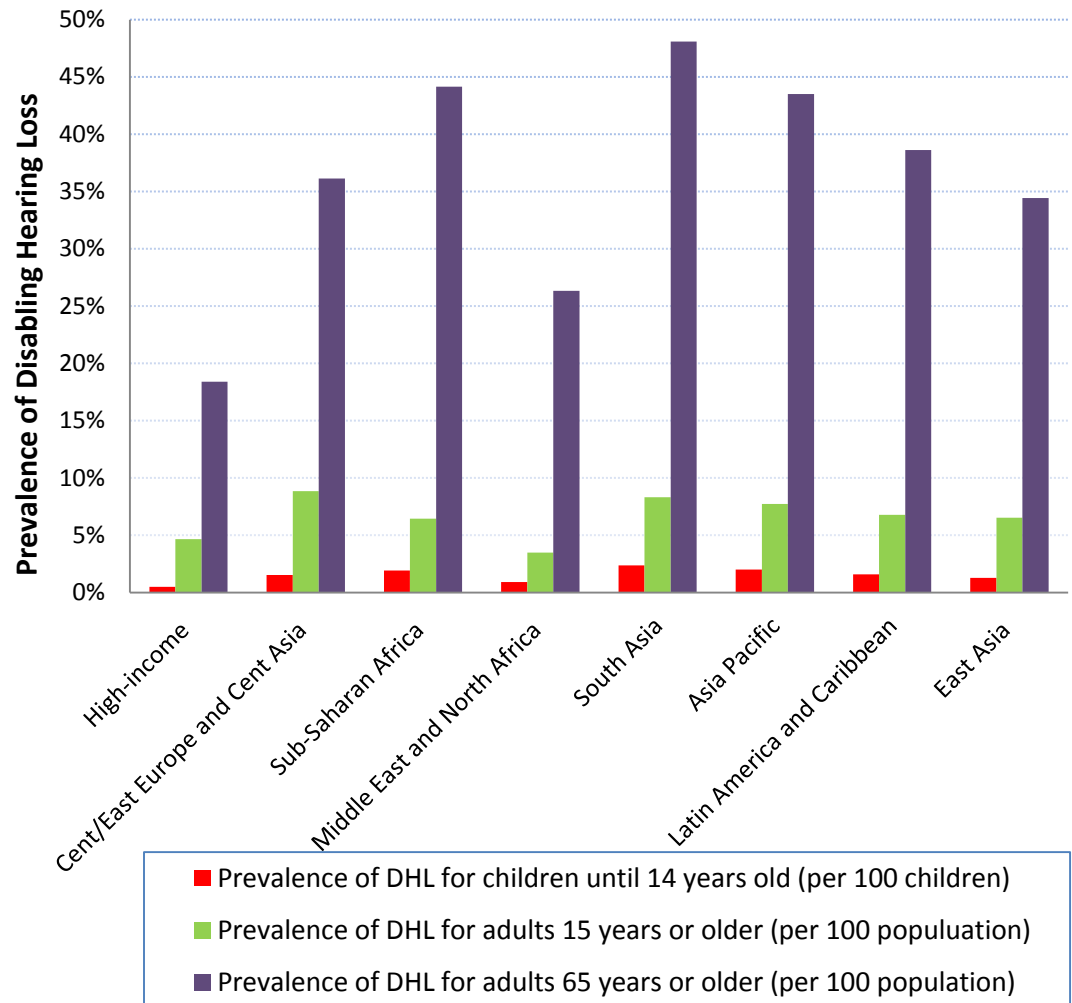
Approximately 15% of the world's adult population has some degree of hearing loss. About one third of those who are affected, have disabling hearing loss.



* MBD, WHO, 2011 DHL estimates, where DHL adult threshold is ≥ 41 dB.

Prevalence of disabling hearing loss for children, adults: 15 years or older, and 65 years or older:

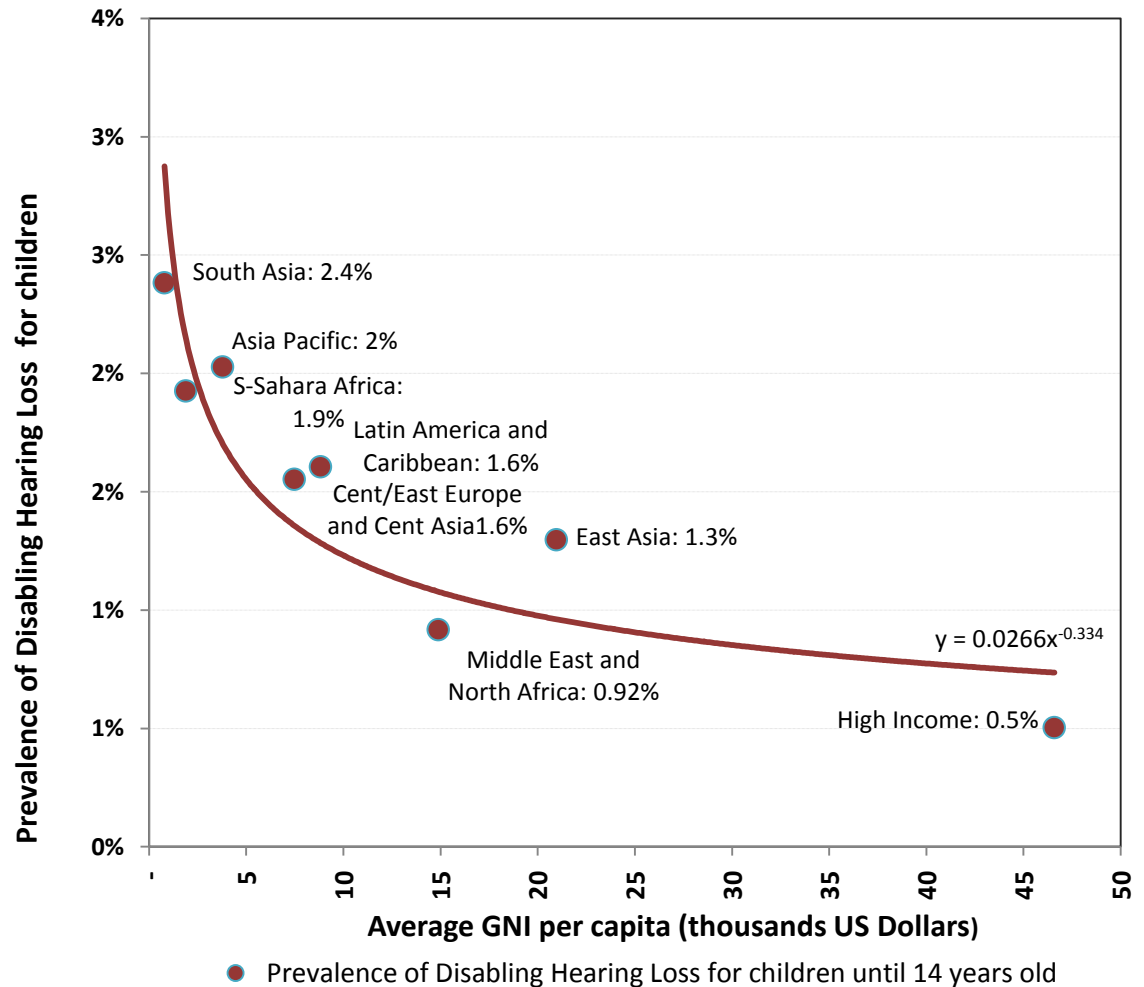
The prevalence increases with age, i.e. prevalence in children is 1.7%, in adults aged 15 years or more, it is around 7%, rapidly increasing to almost one in three in adults older than 65 years.



*MBD, WHO, 2012 DHL estimates, where DHL adult threshold is ≥ 41 dB and children threshold is ≥ 31 dB (children 0 until 14 years old).

Prevalence of Disabling Hearing Loss for children versus average GNI per capita:*

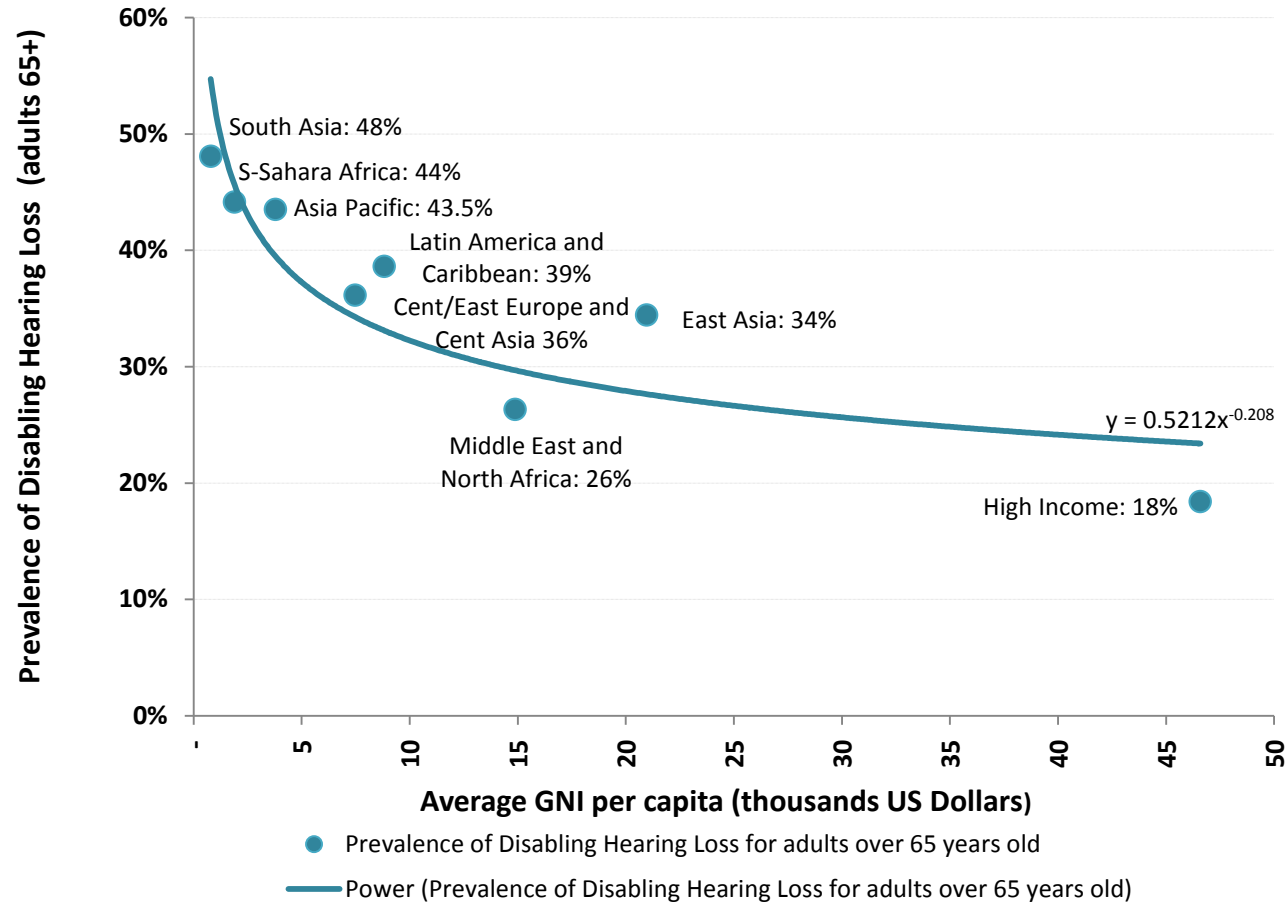
In children, prevalence decreases exponentially as GNI increases.



*GNI per capita: gross national income per capita

Prevalence of disabling hearing loss for adults (65 years or older) versus average GNI per capita:*

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

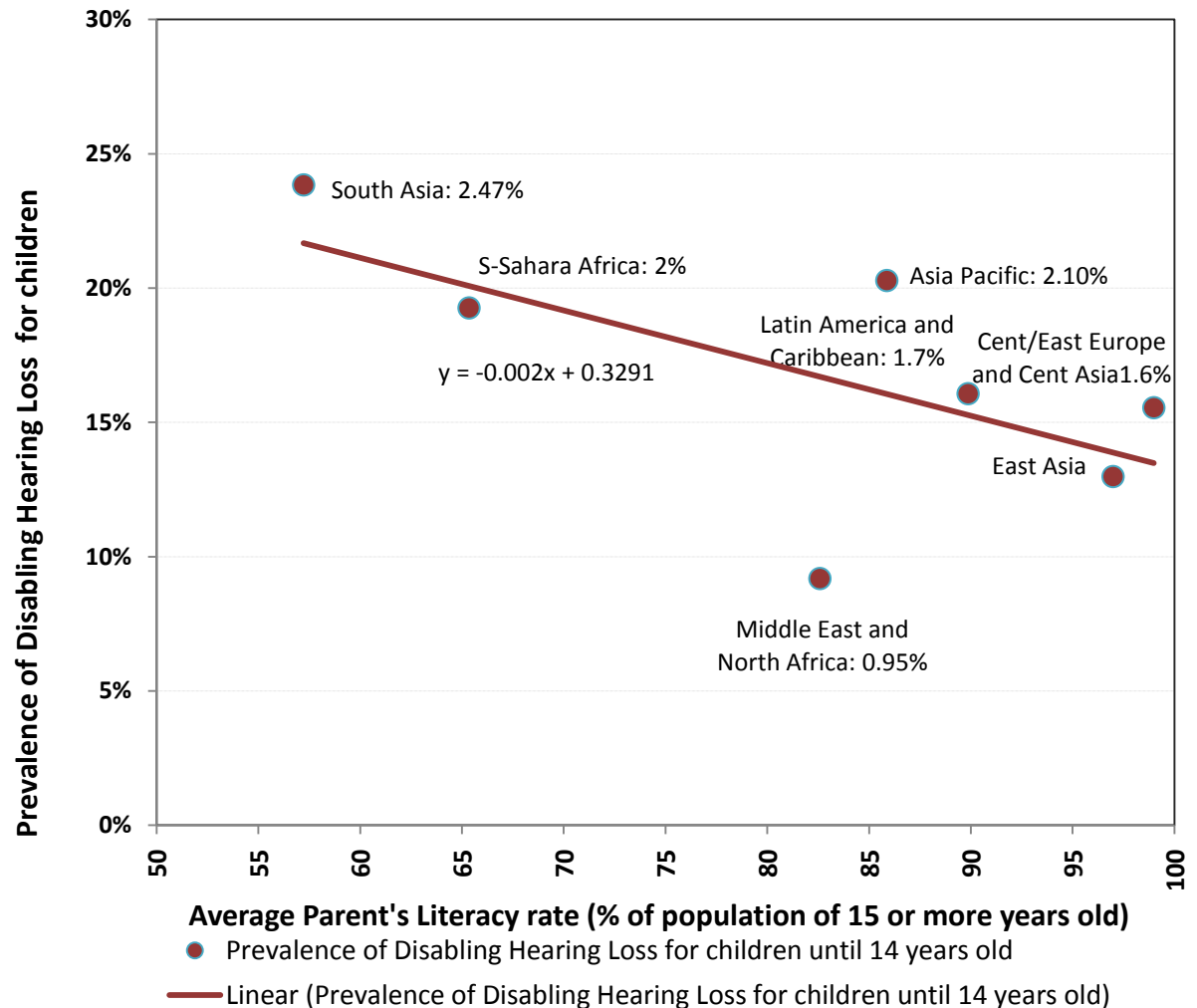


*GNI per capita: gross national income per capita

*MBD, WHO, 2012 DHL estimates.

Prevalence of Disabling Hearing Loss for children versus average parent's literacy rate:

In most regions, prevalence in children decreases linearly as parent's literacy rate increases.



*MBD, WHO, 2012 DHL estimates, where DHL children threshold is ≥ 31 dB.