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Epidemiological Measures of health and Disease

Epidemiological Indicators of Geriatric Health

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For an improved version of this topic, see Third Edition (2012) of the book Medical Biostatistics, which has a large number of new topics and expanded discussion. This book available at <https://www.routledge.com/Medical-Biostatistics/Indrayan-Malhotra/p/book/9781498799539> (list price US\$129.95) or go to <https://www.amazon.in/Medical-Biostatistics-Chapman-Hall-CRC-ebook/dp/B077S4XKDW> for discounted price

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Geriatric health is assuming increasing importance as the older population is rapidly rising in most countries. Some epidemiological measures of geriatric health are given here. These can be used for individual assessment.

Activities of Daily Living

In the case of old age or in the case of handicaps, degree of disability can be measured in terms of an activities of daily living (ADL) index. Scores are assigned to the level of independence assessed on several activities of daily living such as walking, bathing, use of toilet, and dressing. The score could range from zero for complete dependence to, say, four for complete independence on each item. The sum of these scores is called ADL index. A disadvantage of such an index is that it is insensitive to change when the level improves on some items and deteriorates on the others.

No index, including the one just mentioned, is widely acceptable. Fourteen questions ranging from difficulty in self-care (e.g., eating or dressing) to higher level activities (e.g., carrying weights or doing housework) used by the WHO Eleven Countries Study [1] can be adapted to suit local conditions.

Mental Health of the Elderly

Population is quickly ageing around the world. Physical limitations emerging from degeneration are recognized but the mental agility also deserves attention.

Among many instruments available for measuring mental health of the elderly, one in common use is the mental health component of the quality of life questionnaire such as SF-36. This is no different from the tool used for general population of adults. SF-36 however is restricted to the functional status, including for mental health.

Insomnia and anxiety are common in old age. For these, Pittsburgh Sleep Quality Index [2] and Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) [3], respectively, can be used. Both are for general population and not specific to the elderly. Beck Depression Inventory is used for assessing severity of depression symptoms. This is an old instrument but continues to be commonly used, particularly for old age people.

REFERENCES

1. Heikkinen E, Waters WE, Brezinski ZJ, editors. *The Elderly In Eleven Countries: A Sociomedical Survey*. Copenhagen: World Health Organization Regional Office for Europe, 1983.
2. Buysse DJ, Reynolds CF 3rd, Monk TH, Berman SR, Kupfer DJ. The Pittsburgh Sleep Quality Index: a new instrument for psychiatric practice and research. *Psychiatry Res* 1989; 28:193-213.
3. American Psychiatric Association, DSM-IV. *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition. American Psychiatric Association, 1994.