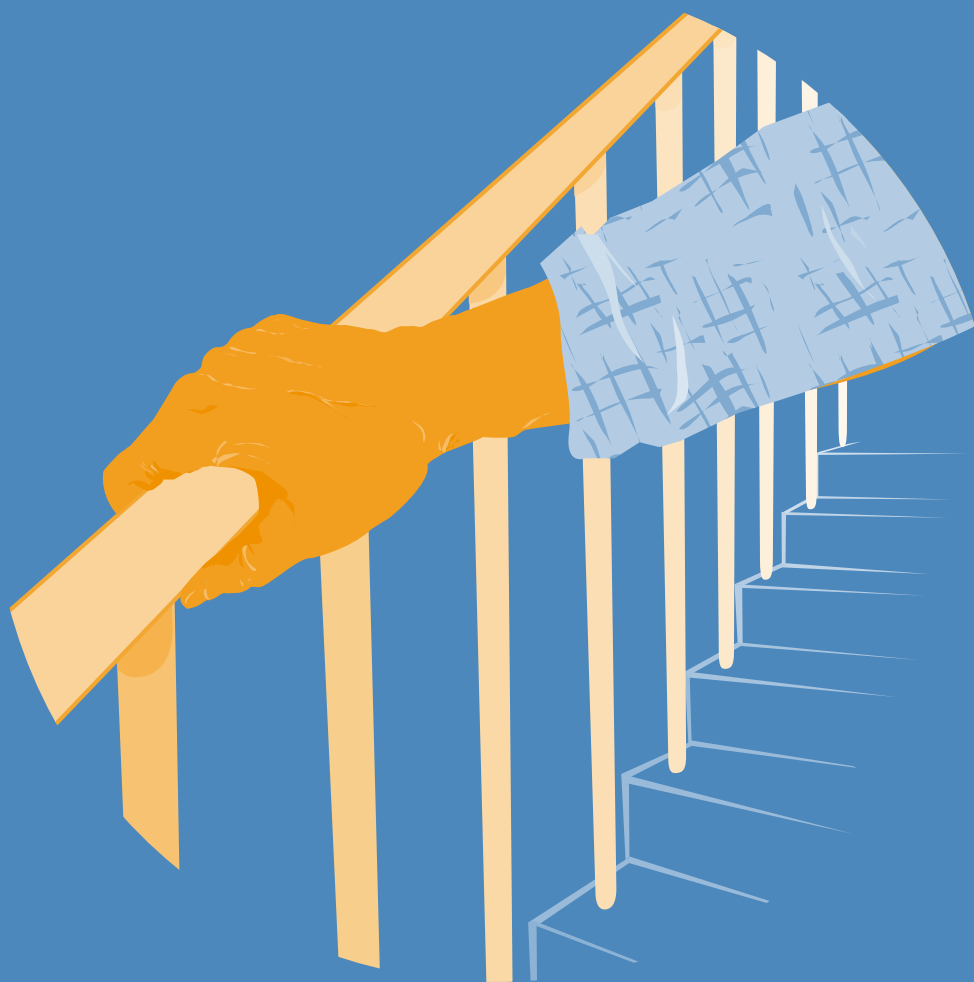
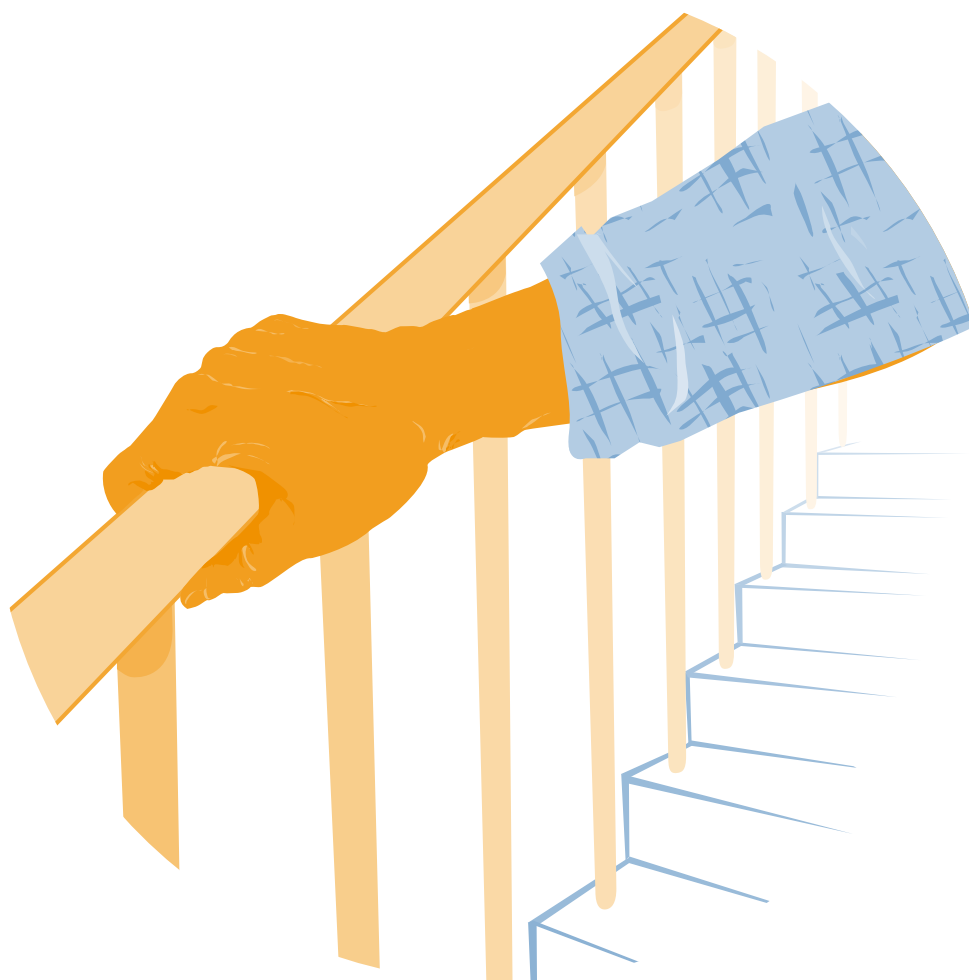


WHO Global Report on Falls Prevention in Older Age



World Health
Organization

WHO Global Report on Falls Prevention in Older Age



WHO Library Cataloguing-in-Publication Data

WHO global report on falls prevention in older age.

1.Accidental falls - prevention and control. 2.Risk factors. 3. Population dynamics. 4.Aged.
I.World Health Organization.

ISBN 978 92 4 156353 6

(NLM classification: WA 288)

© World Health Organization 2007

All rights reserved. Publications of the World Health Organization can be obtained from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel.: +41 22 791 3264; fax: +41 22 791 4857; e-mail: bookorders@who.int). Requests for permission to reproduce or translate WHO publications – whether for sale or for noncommercial distribution – should be addressed to WHO Press, at the above address (fax: +41 22 791 4806; e-mail: permissions@who.int).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

Printed in France

Contents

Chapter I

Magnitude of falls – A worldwide overview	1
1. Falls	1
2. Magnitude of falls worldwide	1
3. Population ageing	3
4. Main risk factors for falls	4
5. Main protective factors	6
6. Costs of falls	6
7. References	7

Chapter II

Active ageing: A Framework for the Global Strategy for the prevention of falls in older age	10
1. What is 'Active Ageing'?	10
2. References	12

Chapter III

Determinants of Active Ageing as they relate to falls in older age	13
1. Cross-cutting determinants: Culture and gender	13
2. Determinants related to health and social services	14
3. Behavioural determinants	15
4. Determinants related to personal factors	16
5. Determinants related to the physical environment	18
6. Determinants related to the social environment	18
7. Economic determinants	19
8. References	19

Chapter IV

Challenges for prevention of falls in older age	20
1. Changing behaviour to prevent falls	20
2. References	25

Chapter V

Examples of effective policies and interventions	26
1. Policy	26
2. Prevention	29
3. Practice – Interventions	32
4. Concluding remarks	33
5. References	33

Chapter VI

WHO falls prevention model within the Active Ageing framework	35
1. The need	35
2. The foundation	37
3. Three pillars of the WHO Falls Prevention Model	39
4. The way forward	47

Acknowledgements

This global report is the product of the conclusions reached and recommendations made at the WHO Technical Meeting on Falls Prevention in Older Age which took place in Victoria, Canada in February 2007. The report includes international and regional perspectives on falls prevention issues and strategies and is based on a series of background papers that were prepared by worldwide recognized experts. The papers are available at: http://www.who.int/ageing/projects/falls_prevention_older_age/en/index.html

The report was developed by the Department of Ageing and Life Course (ALC) under the direction of Dr Alexandre Kalache and the coordination of Dr Dongbo Fu who was closely assisted by Ms Sachiyo Yoshida. ALC would like to thank three institutions for their financial and technical support: the Division of Aging and Seniors, Public Health Agency of Canada; the Department of Healthy Children, Women and Seniors, British Columbia Ministry of Health and the British Columbia Injury Prevention and Research Unit.

The contribution and input of the following experts are gratefully acknowledged: Dr W. Al-Faisal (Syria), Ms Lynn Beattie (U.S.A), Dr Hua Fu (China), Dr K. James (Jamaica), Dr S. Kalula (South Africa), Dr B. Krishnaswamy (India), Dr Nabil Kronfol (Lebanon), Dr P. Marin (Chile), Dr Ian Pike (Canada), Dr Debra J. Rose (U.S.A.), Dr Vicky Scott (Canada), Dr Judy Stevens (U.S.A), Prof. Chris Todd (the United Kingdom), Dr G. Usha (India) and Dr Wojtek J. Chodzko-Zajko (U.S.A.).

Editing, layout and printing of the report was managed by Mrs Carla Salas-Rojas (ALC).

Chapter I. Magnitude of falls – A worldwide overview

1. Falls

Falls are prominent among the external causes of unintentional injury. They are coded as E880-E888 in International Classification of Disease-9 (ICD-9), and as W00-W19 in ICD-10, which include a wide range of falls including those on the same level, upper level, and other unspecified falls. Falls are commonly defined as “inadvertently coming to rest on the ground, floor or other lower level, excluding intentional change in position to rest in furniture, wall or other objects”.

a) Problems in defining falls.

The adoption of a definition is an important requirement when studying falls as many studies fail to specify an operational definition, leaving room for interpretation to study participants. This results in many different interpretations of falls. For example, older people tend to describe a fall as a loss of balance, whereas health care professionals generally refer to events leading to injuries and ill health (1). Therefore, the operational definition of a fall with explicit inclusion and exclusion criteria, is highly important.

2. Magnitude of falls worldwide

a) Frequency of falls.

Approximately 28-35% of people aged of 65 and over fall each year (2-4) increasing to 32-42% for those over 70 years of age

(5-7). The frequency of falls increases with age and frailty level. Older people who are living in nursing homes fall more often than those who are living in community. Approximately 30-50% of people living in long-term care institutions fall each year, and 40% of them experienced recurrent falls (8).

The incidence of falls appears to vary among countries as well. For instance, a study in the South-East Asia Region found that in China, 6-31% (9-13) while another, found that in Japan, 20% (14) of older adults fell each year. A study in the Region of the Americas (Latin/Caribbean region) found the proportion of older adults who fell each year ranging from 21.6% in Barbados to 34% in Chile (15).

b) Fall injury rates.

The rate of hospital admission due to falls for people at the age of 60 and older in Australia, Canada and the United Kingdom of Great Britain and Northern Ireland (UK) range from 1.6 to 3.0 per 10 000 population. Fall injury rates resulting in emergency department visits of the same age group in Western Australia and in the United Kingdom are higher: 5.5-8.9 per 10 000 population total.

c) Need of medical attention.

Falls and consequent injuries are major public health problems that often require medical attention. Falls lead to 20-30% of mild to severe injuries, and are underlying cause of 10-15% of all emergency department visits (18). More than 50% of injury-related hospitalizations among people over 65 years and older (19). The major underlying causes for fall-related hospital admission are hip fracture, traumatic brain injuries and upper limb injuries.

The duration of hospital stay due to falls varies; however it is much longer than other injuries. It ranges from four to 15 days in Switzerland (20), Sweden (21), USA (22), Western Australia (23), Province of British Columbia and Quebec in Canada (24). In the case of hip fractures, hospital stays extend to 20 days (25). With the increasing age and frailty level, older persons are likely to remain in hospital after sustaining a fall-related injury for the rest of their life. Subsequently to falls, 20% die within a year of the hip fracture (26).

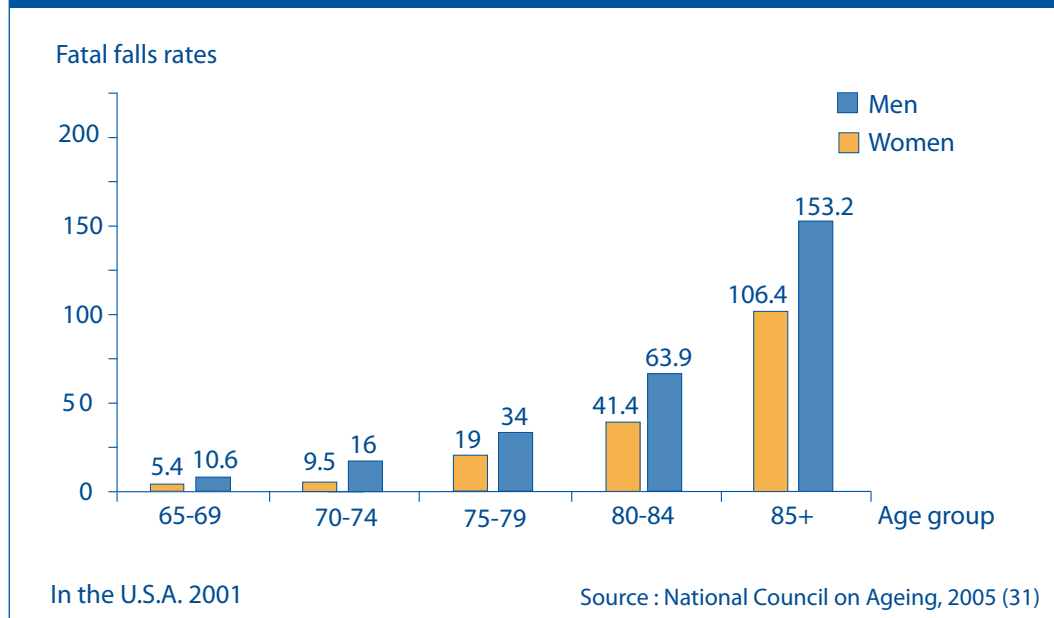
In addition, falls may also result in a post-fall syndrome that includes dependence, loss of autonomy, confusion, immobilization and depression, which will lead to a further restriction in daily activities.

d) Fall mortality rates.

Falls account for 40% of all injury deaths (27). Rates vary depending on the country and the studied population. Fall fatality rate for people aged 65 and older in United States of America (USA) is 36.8 per 100 000 population (46.2 for men and 31.1 for women) (28) whereas in Canada mortality rate for the same age group is 9.4 per 10 000 population (29). Mortality rate for people age 50 and older in Finland is 55.4 for men and 43.1 for women per 100 000 population (30).

Figure 1 (page 3) shows fatal falls by 5-year age group and sex (31). Fatal falls rates increase exponentially with age for both sexes, highest at the age of 85 years and over. Rates of fatal falls among men exceed that of women for all age groups in spite of the fewer occurrences of falls among them. This is attributed to the fact that men suffer from more co-morbid conditions than women of the same age (28). A similar difference in mortality between men and women has been reported following hip fracture. The incidence of hip fracture is greater among women while hip fracture mortality is higher among men (32). One study found that men reported poorer health and a greater number of underlying conditions than women, which substantially increased the impact of hip fracture and consequently increased the risk of mortality (33). Or is it not that men who fall have more co-morbidity than other men in general.

Figure 1. Fatal falls rate by age and sex group



3. Population ageing

"Population ageing is a triumph of humanity but also a challenge to society" (34).

Worldwide, the number of persons over 60 years is growing faster than any other age group. The number of this age group was estimated to be 688 million in 2006, projected to grow to almost two billions by 2050. By that time, the population of older people will be much larger than that

with a decreasing proportion of younger population. The triangular population pyramid of 2005 will be replaced with a more cylinder-like structure in 2025.

a) Impact of population ageing on falls.

Falls prevention is a challenge to population ageing. The numbers of falls increase in magnitude as the numbers of older adults increase in many nations throughout the world. Falls are essentially associated with

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_29459

