Ageing and Health

A HEALTH PROMOTION APPROACH FOR DEVELOPING COUNTRIES

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The purpose of this publication is to outline ways of responding to the health needs of ageing populations in developing countries. It focuses on the Western Pacific Region of the World Health Organization (WHO). The aims of the paper are essentially practical in that it seeks to provide health workers with a framework for selecting appropriate ways of approaching the tasks of improving quality of life, disease prevention and health services delivery for older people.

Populations in all countries of the Western Pacific Region are ageing – an increasing proportion of people are aged 65 and over. This, together with changing lifestyles, means that there has been a radical shift in the types of health problems facing health workers in developing countries. Increasingly, health policies and programmes will have to address the demands posed by the rapidly emerging epidemic in chronic, non-communicable, lifestyle-based diseases and disabilities. While these diseases present a challenge for health policy for people at all stages of the life course, they are particularly evident among older people where their impact is more obvious. The growing proportion of elderly people among the population simply highlights the importance of addressing these health problems.

The publication will summarize:
- the main known facts about the nature of chronic health problems among older people in developing countries;
- the major factors that contribute to the current epidemic of noncommunicable, chronic disease and disability in ageing populations;
- the ways in which a health promotion perspective can provide an important means of addressing the health problems among older people in developing countries.

In order to outline the elements of a health promotion approach to achieving healthy and active ageing in developing countries in the Western Pacific Region it is necessary first to answer three preliminary questions:
- What is ageing?
- What is health?
- What are the main factors contributing to health and ill-health among older people?

It is only when these questions are answered that an approach to healthy ageing can be outlined.

The research base

The approach outlined in this paper is based on research relating to:
- the link between ageing and chronic disease and disability;
- the factors that contribute to chronic disease and disability in later life;
- the factors that improve health outcomes for older people;
- the effectiveness of health promotion strategies in achieving healthy ageing.

It must be said at the outset that the evidence base for some of these areas is modest\(^1\). While there is good evidence that chronic diseases are more common in older

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\(^1\) There is considerable debate about what constitutes evidence in relation to the effectiveness of health promotion. For an excellent discussion of this issue, see McQueen D. Strengthening the evidence base for health promotion. Fifth Global Conference for Health Promotion: Health Promotion: Bridging the Equity Gap, Mexico, 2000.
Table 1: Some key health promotion evaluation resources

<table>
<thead>
<tr>
<th>Key Web sites</th>
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<tbody>
<tr>
<td>Research on effectiveness of various interventions</td>
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<tr>
<td><a href="http://www.hda-online.org.uk/html/research/effectiveness.html">http://www.hda-online.org.uk/html/research/effectiveness.html</a></td>
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<td>Health Development Agency International Union of Health Promotion and Education</td>
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<tr>
<td><a href="http://www.iuhpe.nyu.edu">http://www.iuhpe.nyu.edu</a></td>
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<tr>
<td>Effectiveness of mental health promotion interventions</td>
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<tr>
<td><a href="http://www.hda-online.org.uk/html/research/effectivenessreviews/effective4a.html">http://www.hda-online.org.uk/html/research/effectivenessreviews/effective4a.html</a></td>
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<td><a href="http://www.hda-online.org.uk/html/research/effectivenessreviews/effective1b.html">http://www.hda-online.org.uk/html/research/effectivenessreviews/effective1b.html</a></td>
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<td>Second International Symposium on the Effectiveness of Health Promotion</td>
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<td><a href="http://www.utoronto.ca/chp/symposium.htm">http://www.utoronto.ca/chp/symposium.htm</a></td>
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<td>Evidence base</td>
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<td><a href="http://www.hda-online.org.uk/html/research/evidencebase.html">http://www.hda-online.org.uk/html/research/evidencebase.html</a></td>
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<td>Public Health Electronic Library</td>
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<td><a href="http://www.phel.gov.uk/information/evbase.html">http://www.phel.gov.uk/information/evbase.html</a></td>
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<tr>
<td>Review and evaluation of health promotion: A Selection of papers from the Fourth International Conference on Health Promotion, Jakarta, July 1997 (<a href="http://www.who.int/hpr/archive/docs/ret.html">http://www.who.int/hpr/archive/docs/ret.html</a>)</td>
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<tr>
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<th>Health promotion journals</th>
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<tr>
<td>Promotion and education (P&amp;E): The Quarterly Journal of the International Union for Health Promotion and Education</td>
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<tr>
<td>Health education research (HER): An official research journal of the International Union for Health Promotion and Education</td>
</tr>
<tr>
<td>Reviews of health promotion and education online (RHPEO): The electronic journal of the International Union for Health Promotion and Education.</td>
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<th>Other resources</th>
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<tr>
<td>South Australian Community Health Research Unit</td>
</tr>
<tr>
<td>This site has a lot of resources to assist with planning community development health promotions.</td>
</tr>
<tr>
<td>University of Toronto Centre for Health Promotion</td>
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<tr>
<td><a href="http://www.utoronto.ca/chp/p-titles.htm#_Hlk476405657">http://www.utoronto.ca/chp/p-titles.htm#_Hlk476405657</a></td>
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<tr>
<td>This site has many resources, lectures and other tools for those who work in health promotion.</td>
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people and good evidence concerning the factors that contribute to chronic disease, the evidence is patchier regarding the types of strategies that improve health outcomes for older people. The systematic, published evidence regarding the effectiveness of health promotion interventions is still relatively weak - especially in relation to what works for older people, and particularly those in developing countries.²

In the face of these research gaps it is necessary to draw on some research from developed countries and sometimes to rely on what is effective for other age groups. However, rather than relying on the very specific findings from some of this research, the material in this publication is based more on the underlying principles learned from previous studies. In addition to using evidence from health promotion research, some of the ideas are drawn from a wider range of research literature on community development, social change and individual behaviour and change. Table 1 and Appendix A provide a list of further reading and web links on the research on the effectiveness of health promotion. As far as is possible, the particular circumstances in developing countries have shaped the selection of the types of strategies that are described and the recommendations that are made.

The demographic context

While population ageing is an issue for all regions, it is a particularly pressing matter in the Western Pacific Region as can be seen in Figure 1. Four main points stand out from this Figure:

- The rate of increase of the older population will be faster in the Western Pacific Region than any almost other WHO region.
- The proportion of the population aged over 65 is projected to more than treble from 7% (111 million people) to 23% (450 million) by 2050.
- By 2050, the Western Pacific Region will have the second oldest population of all WHO regions - just below Europe where 25% of the population will be aged over 65.
- With a projected population of 450 mil-

² Because of the lack of solid evidence in relation to developing countries the International Union for Health Promotion and Education has established the Global Forum on Health Promotion Dialogue, one of the aims of which is to strengthen the evidence base for health promotion in developing countries (http://www.iuhpe.nyu.edu/projects/index.html).
lion older people by 2050, the Western Pacific Region will have far more older people than any other world region.

The two main reasons for the ageing of the population in the Western Pacific Region are that women are having fewer babies (fertility decline) and both men and women are living longer (increased longevity). In 1975 the average life expectancy in the Western Pacific Region was 64 years. By 1997 this had increased to 70 years and it is projected to increase further to 75 years by 2025.³

The extent to which populations in the Western Pacific Region have aged is summarized in Table 2 which shows the percentage of people aged over 65 and the percentage aged under 15. In general, the developed countries in the Region have higher proportions of older people and fewer younger people. However, even those countries with a young population structure will age in the years ahead.

Population ageing presents a range of challenges to governments throughout the world. It is projected to create economic problems as the taxation base shrinks and the support needs of an older population increase. The challenge for all countries is to develop health strategies that result in older people remaining healthier for longer. Success will not only contain the costs of health care but will improve the quality of life of an increasing proportion of the population.

The challenge of an ageing population is particularly pressing in developing countries. Elderly populations are rapidly increasing in the developing world – at a much faster rate than has occurred in the developed world. For example, the older population of France took 115 years to double from 7% to 14%. It will take China just 27 years to achieve the same increase.⁴ When the older population increases at such a rapid rate, the challenges in making the necessary adjustments are great indeed. Perhaps even more importantly, developing countries must make these adjustments before they have become affluent. While developed countries may be able to accommodate gradual population ageing and the resulting income, housing and health expenditures, many developing countries must adjust to rapid ageing with very limited economic resources.⁵

In addition to the speed at which developing countries in the Western Pacific Region are projected to age and the limited

economic resources for responding to this transition, other changes in the developing countries in the Region add to the challenge of ensuring adequate health for this older population. Among these changes are:

- Rapid urbanization, which means that many younger people are migrating to cities and older people are remaining in rural areas. Where older people remain in rural areas they may have to manage without adequate kin support. Where older people move to cities with their children they lose the support provided by their local networks.

- The HIV/AIDS epidemic, which will mean that many older people will lose younger family members on which they would have relied on in later life.

- Changes in family structures and roles, which mean that the family will be unable to provide the degree of support for older people that it once did. Apart from high levels of migration, the trend to smaller families and more women in the paid workforce means that there will be fewer family members to provide for the health care of older people.

While traditional systems in which families are the foundation of care for older people are being weakened by the forces of modernization, poverty and economic constraints at the government level mean that there is no strong safety net to compensate for the weakening role of families.

Modernization has not only weakened the traditional support systems on which older people relied, it has also led to lifestyle and environmental changes that have resulted in different types of health needs. While the health policies of many developing countries have for many years focused on controlling communicable diseases, such as malaria, countries are now facing a change in the type of health problems experienced by an older population in an urbanizing world. Because of lifestyle changes, poverty and environmental changes, many of the diseases and disabilities of older people are now chronic diseases. These diseases take a long time to develop and become disabling but also have lasting effects if not managed properly.

As the population ages these noncommunicable lifestyle-related and environment-based diseases become an increasingly important component of the health needs of the population. Accordingly, health policies must shift to accommodate such health concerns.

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**Key points**

1. Economic transformations and the demographic ageing in the developing nations of the Western Pacific Region will lead to an increasing burden of noncommunicable disease and disability.
2. Health services and policies will need to be oriented towards meeting the epidemic in noncommunicable diseases.
3. Urban migration, HIV/AIDS and changes in family structures have dislocated kinship networks and reduced the capacity of relatives to provide for the needs of older family members.
4. Accordingly, the health care needs of older people cannot always be adequately met by other family members.
5. Strategies to meet the health needs of older people must recognize the limited resources of governments to provide a health and welfare safety net for their elderly.
To promote healthy ageing it is important to be clear about what is meant by the term ‘ageing’.

**Chronological age and health age**

Age normally refers to chronological age - the number of years a person has been alive. In health research however, chronological age is a misleading measure of a person’s health age. When considering ways of promoting healthy ageing, it is important to avoid the stereotype that older people are typically ill and frail. While many diseases and disabilities are more common among older people, it is also true that:

- People of the same age vary greatly in terms of their health. While some 70-year-olds have many diseases and disabilities, many remain healthy.
- While some senses such as hearing and sight deteriorate with age, the rate and extent to which they do so varies widely. We cannot conclude anything about a person’s health simply by knowing how old they are.
- While some physical changes and health problems are more common at some ages than others, this does not mean that the majority of people in a particular age group suffer from any particular condition.
- Ill-health is not an inevitable consequence of reaching any particular age. When considering health promotion and interventions to encourage healthy ageing, older people must not be treated as though they are a uniform group. Like any other age group, the older population is diverse. It includes those who are often called the ‘young old’ and the ‘old old’; those who are healthy and those who are frail; those from advantaged backgrounds and those living in poverty; those who live alone and those with close family connections. Also, the ageing experience of older women is different from that of older men. Because of this diversity, health promotion should be specific, since the effectiveness of different forms of health promotion will depend on which group of older people are being targeted.

Not only are older people a diverse population, they also have an assorted range of health needs. The reasons for this diversity in health profiles among older people include:

- Genetic characteristics: Some diseases have a genetic component, which means that they tend to run in families or are found more among some races and ethnic groups than others. For example, there are clear genetic predispositions towards contracting some forms of cancer, arthritis, heart disease and some eye conditions.
- Gender: Some conditions and diseases are more characteristic of women than men or vice versa. Some gender differences will be due to biological differences (e.g. breast cancer), while some may be linked with the different lifestyles of men and women (e.g. higher male rates of tobacco use). Gender also makes a difference to the extent to which

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individuals have access to resources, including money and good nutrition (see below for a fuller discussion of gender). Appendix B reports the prevalence rates and age of onset of a range of different later-life diseases for men and women.

Social class: The better off people are financially the better their health and the longer they will live. This link between health and social class is because of class differences in:
- lifestyle;
- exposure to risk factors (especially work-related factors that lead to ill-health at all ages);
- financial resources that allow health-promoting types of behaviour (e.g. diet, purchase of medicines, health care support);
- quality of housing.

Poverty: As well as being linked with social class, poverty is also associated with the country in which a person lives. In the developing countries of the Western Pacific Region high levels of poverty are associated with poorer health and early ageing. A 50-year-old in a poor country who has lived a life in poverty and in harsh circumstances will appear to be much older than their 50-year-old counterpart in an affluent country. The figures in Appendix B show that for many diseases the average age of onset is earlier in developing regions than in the established market economies.

Culture: Cultural differences mean that people of the same age have different health profiles in different countries. Cultural prac-

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### Table 3: Total fertility rates and life expectancy in the Western Pacific Region (in order of life expectancy)

<table>
<thead>
<tr>
<th>Country</th>
<th>Total fertility rate</th>
<th>Life expectancy (at birth)</th>
<th>Future life expectancy at age 60</th>
<th>Population ('000s)</th>
</tr>
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<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Japan</td>
<td>1.3</td>
<td>77.9</td>
<td>84.0</td>
<td>17.6</td>
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<tr>
<td>Hong Kong</td>
<td>1.0</td>
<td>77.2</td>
<td>82.4</td>
<td>na</td>
</tr>
<tr>
<td>Australia</td>
<td>1.8</td>
<td>76.2</td>
<td>81.8</td>
<td>17.0</td>
</tr>
<tr>
<td>Singapore</td>
<td>1.5</td>
<td>75.6</td>
<td>79.6</td>
<td>14.5</td>
</tr>
<tr>
<td>Guam</td>
<td>3.9</td>
<td>75.4</td>
<td>80.2</td>
<td>na</td>
</tr>
<tr>
<td>Macao, China</td>
<td>1.2</td>
<td>75.0</td>
<td>80.0</td>
<td>na</td>
</tr>
<tr>
<td>New Zealand</td>
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<td>74.1</td>
<td>79.7</td>
<td>16.7</td>
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<tr>
<td>Mariana Islands</td>
<td>2.0</td>
<td>72.7</td>
<td>79.0</td>
<td>na</td>
</tr>
<tr>
<td>American Samoa</td>
<td>4.5</td>
<td>72.0</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>1.4</td>
<td>71.0</td>
<td>78.6</td>
<td>11.1</td>
</tr>
<tr>
<td>Malaysia</td>
<td>3.1</td>
<td>70.2</td>
<td>75.0</td>
<td>10.6</td>
</tr>
<tr>
<td>Niue</td>
<td>3.0</td>
<td>70.0</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Tonga</td>
<td>3.3</td>
<td>70.1</td>
<td>71.6</td>
<td>11.6</td>
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<tr>
<td>Brunei Darussalam</td>
<td>2.7</td>
<td>70.0</td>
<td>76.0</td>
<td>13.3</td>
</tr>
<tr>
<td>New Caledonia</td>
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<td>69.8</td>
<td>75.8</td>
<td>na</td>
</tr>
<tr>
<td>China</td>
<td>1.4</td>
<td>68.7</td>
<td>73.0</td>
<td>11.8</td>
</tr>
<tr>
<td>Cook Islands</td>
<td>2.6</td>
<td>68.4</td>
<td>71.5</td>
<td>11.4</td>
</tr>
<tr>
<td>French Polynesia</td>
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<td>75.4</td>
<td>na</td>
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<td>Tokelau</td>
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<td>Wallis and Fortuna</td>
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<tr>
<td>Philippines</td>
<td>3.3</td>
<td>66.6</td>
<td>71.9</td>
<td>11.5</td>
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<td>Fiji 3.3</td>
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<td>Solomon Islands</td>
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<td>2.3</td>
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<td>Palau</td>
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<td>64.5</td>
<td>70.8</td>
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<tr>
<td>Tuvalu</td>
<td>3.2</td>
<td>64.0</td>
<td>70.0</td>
<td>9.9</td>
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<tr>
<td>Mongolia</td>
<td>2.3</td>
<td>62.6</td>
<td>67.6</td>
<td>10.8</td>
</tr>
<tr>
<td>Kiribati</td>
<td>4.5</td>
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<tr>
<td>Papua New Guinea</td>
<td>4.8</td>
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<td>Cambodia</td>
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<td>Lao People’s Democratic Republic</td>
<td>5.6</td>
<td>52.0</td>
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</tbody>
</table>

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Source: WHO, Western Pacific Region Country Health Profiles [http://www.wpro.who.int/info_source.asp]  

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that these diseases are either a natural or an inevitable part of ageing. Diseases and disabilities are linked to getting older for one of three reasons.

Intrinsic ageing: This occurs when health decline occurs as a natural and inevitable part of ageing. Scientists debate about exactly what conditions are due to natural, biological components of growing older. As research advances, we are learning that more and more of the health conditions we once thought were part and parcel of growing older are due to disease and can, in principle, be prevented.  

Extrinsic ageing: Health decline among older people is often not caused by age itself. Many diseases are concentrated among older people because they reflect the cumulative effect of a lifetime's exposure to the factors that cause the disease. For example, it is estimated that, although the rate of cancer is directly linked with age, approximately 70% of cancer cases are due to the cumulative factors include diet, beliefs about health and effective methods of care, lifestyle (including patterns of smoking, alcohol consumption and drug use) and the roles of men and women. These cultural differences lead to different types of behaviour, which means that the disease pattern of older people in one culture can be very different from that in another culture.

Environment: Some older people live in healthier environments than others. Better sanitation, access to safe drinking water, clean air and warm housing will mean that, despite belonging to a similar age group, older people have very different health profiles.

Is disease and ill-health a natural part of ageing?

Many of the disabilities and diseases suffered by older people are not a natural part of growing older. It is true that some diseases are far more common among older people than among younger people and that the risk of developing these diseases and disabilities increases as people grow older (see figures in Appendix B). However, this does not mean

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**Key Points**

1. Age itself is not a good guide to a person's state of health.
2. The older population is a diverse population.
3. Health promotion interventions need to be shaped by this diversity rather than be simply directed to 'the elderly'.
4. Disease and disability is not an inevitable part of ageing.

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**Key points**

1. The older population is diverse
2. Health promotion strategies, therefore, also need to be diverse to cater for this diverse population

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**Actions**

**Directed towards decision-makers**

1. Encourage policy-makers and programme developers to avoid assuming that all people of a given age are equally healthy or unhealthy.
2. Educate decision-makers to avoid simply relying on age-based criteria for screening, health promotion targeting or programme eligibility.
3. Promote interventions that are targeted differently for particular groups of older people.

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**Ref**

tive effect of exposure to environmental car-
cinogens.17

The combination of intrinsic and extrin-
sic factors: Health decline in later life can be
due to the combined effect of intrinsic and
extrinsic causes. Natural decline can be ac-
celerated by the cumulative effects of lifestyle
and environmental factors over a lifetime.
For example, the decline in heart and lung
efficiency over a lifetime may be due partly
to natural decline in muscles and cells over
time as well as to the accumulated effects of
smoking.

For practical purposes the most impor-
tant thing is not whether a disease is caused
by intrinsic or extrinsic ageing but whether
a health condition is preventable, or at least
treatable. Health promotion and disease pre-
vention programmes can only be directed at
preventable conditions. It is the role of re-
search scientists to discover the causes of
diseases and whether or not they can be
treated or prevented. ■

17 Health of the elderly. Geneva, World Health Organiza-
tion, 1989
What is Health?

Defining health

The World Health Organization defines health as:

“a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”

This definition has three important health promotion implications:

Health is more than physical health. The three components of health - physical, mental and social - cannot usefully be separated from each other. Physical well-being affects psychological health. Psychological health affects physical well-being, as the research on somatic disorders demonstrates. Social well-being (e.g. social integration, friendships, valued roles, etc.) has a preventative effect on both physical and psychological ill-health.

The emphasis on well-being rather than just the ‘absence of disease or infirmity’ emphasizes the qualitative dimension of health. This means that any strategy for healthy ageing should aim to improve on the quality of life, not just the quantity - it should aim to extend ‘health expectancy’ rather than just ‘life expectancy’ (see pages 25, 59). Fries argued that, as we approach the biological limits of extending life expectancy, the role of health polices will be the ‘compression of morbidity’ - reducing the period when individuals suffer from disease or infirmity before death. This distinction between life expectancy and health expectancy is critical in framing any health strategy. Any strategy must to be clear about its primary goal – is it life expectancy or health expectancy?

Key Point

Avoid sharp distinctions between physical, mental and social health. These three dimensions of health affect each other. This implies a more holistic approach to health promotion and disease prevention than clinical interventions imply. It means that physical health problems might be effectively tackled by addressing mental or social health matters rather than by a direct medical intervention.

Actions

Directed towards decision-makers
1. Advocate health interventions that extend beyond the treatment and prevention of physical disease and disability.
2. Advocate for interventions that protect the quality of life and do not just extend life expectancy.
3. Develop health interventions that promote a person’s subjective sense of well-being. This will involve knowing what a person’s health goals are.

Good health has a subjective dimension. Well-being has no fixed meaning. The meaning of well-being will vary between cultures, social classes and individuals. This means

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that health interventions should take account of the health goals of the people being targeted. Not only will this lead to better targeting of well-being, but it will also produce a better fit between interventions and individual motivations.

Physical health

It is useful to make a number of distinctions regarding physical health.

Communicable and noncommunicable diseases

In the past, infectious diseases have been the main health problem in developing countries. Public health programmes, such as immunization, safe water and better sanitation projects, have been successful in containing many of these communicable diseases. The challenge of addressing such infectious as HIV/AIDS and malaria remains, but the disease burden of the future will be the noncommunicable diseases that stem from the accumulated effects of lifestyle and deterioration associated with ageing.

The trend from communicable to noncommunicable disease has been called an ‘epidemiological revolution’. The prominence of noncommunicable disease is partly due to the success in reducing infectious diseases. However, it is also due to population ageing and the lifestyle changes that have accompanied globalization, industrialization and urbanization.

Population ageing will require that health systems be reoriented towards the different health needs of ageing populations. An aged population has far more chronic or long-term disease, more people with long-term disabilities, and more noncommunicable disease than infectious disease. Figure 2 illustrates how projected ageing will change the balance of the types of disease in the developing world.

Lifestyle, disease and disability

Among the noncommunicable health problems, the distinction between disease and disability is important. This distinction reflects the difference between the lifestyle-related diseases that reflect extrinsic ageing and the disabilities and infirmities associated with intrinsic ageing (see page 13). Some changes are the inevitable result of growing older. Hormonal changes in women, changes in the rate at which cells divide and reproduce and other cellular changes are examples of normal ageing which can affect health.

Diseases such as diabetes, heart disease, osteoporosis and stoke afflict only some older people and are much more common among those with an unhealthy lifestyle that has accompanied modernization and urbanization. The main lifestyle elements that have been shown to contribute to many later life diseases are:

- poor nutrition and diet;
- being overweight;
- getting too little exercise;
- tobacco use; and
- high alcohol consumption.

These lifestyle characteristics are particularly damaging for health because they have multiple health consequences. For example, poor diet is implicated in diabetes, heart disease, osteoporosis, strokes, high blood pressure, etc. Tobacco is linked to almost all the diseases of later life. The good news is that this means that, if lifestyle behaviour can be changed, it will lead to a whole range of health improvements at one time.
Disability, health and context
Simply having a disorder does not mean that the disorder or disease will be disabling. To some extent, the degree to which a disorder becomes disabling depends on the context in which a person must live with the disorder. That is, the environment, rather than the particular condition from which a person suffers, may be disabling. For example, a person who has become unsteady on their feet will be less or more disabled depending on the extent to which their environment turns the condition into a disability. Steep paths, uneven surfaces and the absence of handrails will all make it much more difficult for such a person to get around and remain relatively independent. This means that the best way of responding to some health problems is not to directly treat the physical problem (it may not be treatable), but to treat the environment in which a person lives. In this way the health problem need not become so disabling. The way of helping with some health problems is to adapt the environment.

**Table 4: Common physical disorders among older people**

<table>
<thead>
<tr>
<th>Class of health problem</th>
<th>Specific type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart disease and stroke</td>
<td>Congestive heart disease</td>
</tr>
<tr>
<td></td>
<td>Hypertension (high blood pressure)</td>
</tr>
<tr>
<td></td>
<td>Coronary vascular disease (CVD)</td>
</tr>
<tr>
<td>Cancers</td>
<td>Breast</td>
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<tr>
<td></td>
<td>Bowel</td>
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<tr>
<td></td>
<td>Cervical and related</td>
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<tr>
<td></td>
<td>Prostate</td>
</tr>
<tr>
<td></td>
<td>Lung</td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td>General damage</td>
</tr>
<tr>
<td></td>
<td>Osteoarthritis</td>
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<tr>
<td></td>
<td>Osteoporosis</td>
</tr>
<tr>
<td>Sensory</td>
<td>Cataracts</td>
</tr>
<tr>
<td></td>
<td>Glaucoma</td>
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<tr>
<td></td>
<td>Macular degeneration</td>
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<tr>
<td></td>
<td>Hearing loss</td>
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<tr>
<td></td>
<td>Parkinson’s disease</td>
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<tr>
<td></td>
<td>Diabetes</td>
</tr>
<tr>
<td></td>
<td>Urinary incontinence</td>
</tr>
<tr>
<td></td>
<td>Chronic obstructive pulmonary disease</td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

**Key Points**
1. The health burden of the future will be from noncommunicable diseases and disorders.
2. The noncommunicable diseases of later life reflect the cumulative effect of lifestyle and environmental influences over many years.
3. The environment contributes to the extent to which a disease or disorder becomes disabling. This means that part of the way of responding to noncommunicable diseases and disorders is to modify the environment.

**Actions**

**Directed towards decision-makers**
1. Urge interventions that minimize the extent to which health conditions in later life become disabling. These interventions must modify the environments in which older people live so that their disorders do not become incapacitating.
2. Advocate research that identifies the lifestyle factors that contribute to later-life diseases.

**Directed towards individuals**
1. Increase understanding among younger people of the long-term effects of their lifestyle
2. Increase understanding among older people regarding the way in which current lifestyle change can still reduce their risk of disease and disability or minimize the effects of current disorders

**Common physical health problems among older people**

The health problems encountered among the ageing populations within the Western Pacific Region vary somewhat between countries. Furthermore, the age at which age-related health problems develop vary considerably both within and between countries - this is especially so with those diseases closely related to lifestyle (see page 11) and poverty. Nevertheless, it is useful to note the ‘typical’ health problems that emerge at different ages. Table 4 lists the main physical disorders. These are discussed more fully in the section on common health problems (see page 11) and the details about prevalence, age of onset and duration are provided in Appendix B.
Mental health and cognitive functioning

The distinction between mental and physical health can be somewhat artificial. Many mental disorders have a physical component. For example, depression has a neurological component. Dementia, as far as it is understood, is primarily an organic impairment, although it has mental and cognitive effects. Conditions such as anxiety and alcohol dependence both include important physiological elements. Many physical diseases lead to psychological disorders. For example, heart disease, stroke, diabetes, cancer, thyroid and endocrine problems are frequently associated with depression in older adults.

The main mental and cognitive functioning problems (see page 29 for more details) among the elderly are:

- dementia;
- depression;
- alcohol dependence; and
- suicide.

Social health

Social health is an aspect of health that includes social relationships as part of the broader concept of health. It has two elements: individual and societal.

At the individual level social health refers to the way in which individuals interact with the wider society. This form of social health includes:

- social participation;
- avoiding marginalization;
- a sense of worth;
- feelings of belonging;
- a sense of control and empowerment over one's life;
- avoiding undue dependence on others;
- being treated with dignity.

Social health, in this sense, has implications for both physical and mental health. The less isolated, the greater the sense of control and empowerment, and the more socially integrated a person is, the less they suffer from a range of physical and mental disorders. This means that one way in which some physical and mental disorders can be prevented is by improving a person's social well-being.

At the societal level social health refers to broad social characteristics such as:

- low levels of social conflict;
- minimal poverty;
- social cohesion;
- minimal crime;
- tolerance of difference; and
- levels of social capital (trust, social interaction and social connections).

Social health is an important component of individual physical and mental health. The role of social health and a positive social environment is an important component of the health promotion strategies adopted by WHO.

The Regional framework for health promotion in the Western Pacific Region 2002-2005 stresses the role of social capital in health promotion. A focus on social capital emphasizes the importance of generating trust, goodwill and cooperation among individuals and groups as a means of mobilizing resources and encouraging collaboration between different sectors. Through this healthier and richer social environment it is easier to create the circumstances in which individuals can make healthier decisions, and limited resources can be directed towards the best health outcomes. The framework document argues that:

>Social capital has been an important factor for improving health even where economic capital is low. This has many implications for poverty-stricken areas in the Region where a

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Quantity vs quality of life (or mortality vs morbidity)

Frequently health is equated with living longer. Thus the success of a health intervention may be measured in terms of how much it extends a person’s life. This is a legitimate measure of the success of health interventions and is frequently used as a measure of national progress in achieving a healthy society. However, the gerontological and health promotion literature stresses the importance of the quality of life. While extending the length of a person’s life is seen as desirable, the quality of that life is also seen to be a key measure of the effectiveness of any health promotion strategy.

The distinction between a focus on mortality (quantity) and morbidity (quality) can be illustrated by considering the health of men and women in later life. In all nations in the Western Pacific Region, women live longer than men and by this measure are healthier. However, women are much more prone than men to chronic diseases and disabilities that affect the quality of their longer life. Women in all Western Pacific Region countries live a larger percentage of their life with a chronic disease or disability than men do (see Table 3).

The effectiveness of health promotion strategies will depend partly on the way in which effectiveness is measured. A particular health promotion intervention may not extend a person’s life but may improve the quality of that life. Does this mean that the health promotion activity has failed?

The Active Ageing strategy of WHO is emphatic in its answer. It identifies active ageing as the basic framework of the WHO policy on ageing. It defines active ageing as:

“...the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age.”

Key Points
1. Mental health problems are an important, but frequently ignored aspect of health among older people.
2. Social health involves people having good social networks that are supportive and empowering.
3. Health is more than the absence of disease or simply about living longer. Healthy ageing must pay attention to the quality of life and not just the quantity.

Actions

Directed towards decision-makers
1. Increase awareness of health policy-makers and policy-makers in non-health sectors that physical and mental health are affected by the social environment in which a person lives.
2. Advocate for policies and actions that promote a sense of empowerment, personal control and responsibility for health among older people.
3. Advocate on behalf of older people to ensure that they are treated with dignity and respect.
4. Promote actions that build the stock of social capital within the community.

Directed towards individuals
1. Involve individuals in health promotion programmes.
2. Urge individuals to take actions on their own behalf to improve their health, both by improving their lifestyle and by advocating for a health-promoting environment.
3. Encourage social participation by older people and help them to become integrated into the community, and provide the opportunity for older people to make a meaningful contribution to the lives of others in the community.
4. Increase the health literacy of older people so that they are able to take actions for their own health.
5. Enable older people to get into the community by improving transport and safety in public places.

References
25 Ibid.
Physical health

Heart disease and stroke

Congestive heart failure (CHF): Although CHF currently occurs at a lower rate in the developing countries in the Western Pacific Region than in developed countries, the rates are increasing. Prevalence is much higher among those aged over 60 than in younger age groups and is much higher among men than women. CHD develops as a result of longstanding heart disease, hypertension or following a heart attack. (Appendix B)

Hypertension (high blood pressure): Hypertension can occur at any age, but the risk increases with age. Rates vary by gender and race. The incidence of hypertension increases most sharply around the mid-forties and steadily thereafter. Until the age of about 55 males are more likely than females to suffer from hypertension. Thereafter, women have higher rates than men. Among people in their mid-fifties to mid-sixties the rates vary between 40% to 60%, depending on race and gender. Among those in their mid-sixties to mid-seventies hypertension rates vary from 50% to 75%, and among older people between 60% to 75% suffer from hypertension.

Coronary vascular disease (CVD): Vascular heart disease stems from blockage of the blood vessels taking blood to the heart. The accumulation of fatty deposits (plaque) that block the arteries can begin in the teenage years and continues throughout life. By the ages of 45 to 50, many people have developed atherosclerosis (blockage of the arteries), which puts them at risk for coronary heart disease. The rates of CVD increase steadily from the mid-forties. On average, men tend to suffer from CVD at about 10 years younger than women.

Cerebrovascular disease (stroke): Although individuals of any age can suffer a stroke, older people have a higher risk. For every decade after the age of 55, the risk of stroke doubles, and two-thirds of all strokes occur in people over 65. People over 65 are seven times more likely to die from a stroke than the general population. The rate of stroke varies by ethnic and racial background, as well as lifestyle factors, and is higher among men aged over 60 than among women aged over 60. Although stroke-related mortality rates are declining in developed countries, they are increasing in developing countries. (Appendix B)

Cancer

Cancer deaths increased from about 6% to 9% of all deaths in developing countries from 1985-1997, and have remained stable at around 21% in developed countries.28

Breast cancer: Most breast cancers occur in women aged over 50. Although detected rates of breast cancer are much lower in the developing countries in the Western Pacific Region than in developed countries (Appendix B), breast cancer occurs earlier in the developing countries – on average at about 53 years of age.

Colonic cancer: While the chances of colonic cancer progressively increase from age 50, the average age of the onset of colon cancer in the developing countries in the Western Pacific Region is closer to 60. The rates are much lower in the developing coun-

28 WHO Op cit. Ref 3
tries in the Region than among developed countries. Among those aged over 60, men are a little more prone to colonic and related cancers. (Appendix B)

Prostate cancer: Most (75%) prostate cancer is diagnosed in men aged over 65, with just 7% of cases found in men younger than 60. By age 75, three-quarters of men display some cancerous changes, but most of these remain latent and do not represent a serious threat to health. Detected rates of prostate cancer are much lower in the developing countries of the Region than in developed economies (Appendix B).

Cervical and related cancers: Cervical and related cancers occur at a higher rate in the developing countries in the Region than among women in developed economies (Appendix B). The average age at which women develop these cancers is around 55.

Lung cancer is the most common form of cancer among men. The average age of onset is around 62 years. Developing countries are projected to have increasing mortality rates. For example, China reported about 152,000 deaths in 1990, but expects over half a million by 2020.

Musculoskeletal problems
By later life, many older people have suffered some form of general damage to their bones or joints. This may be due to injuries or the excessive demands of physical labour throughout life. Joint damage, especially in the neck and back, are common problems. In addition to these general musculoskeletal difficulties, the following specific conditions are much more likely to occur among older than younger people.

Osteoarthritis is a disease that causes pain and inflammation in the joints and is associated with the breakdown of cartilage in joints. As the disease develops, movement can become very painful and difficult. Prevalence rates are lower in developing countries than in developed economies, but are rising (Appendix B). The incidence of osteoarthritis, the most common form of age-related arthritis, increases with age and most commonly develops after the age of 45. The incidence increases sharply among those aged 60 and over and is more common among women than men. On average, men and women suffer from this disease for about 12 years.

Rheumatoid arthritis is a disease that results in inflammation in the lining of the joints. This inflammation can make movement in the affected joints both painful and difficult. This form of arthritis increases with age and is more common among women than men. The average age of onset is relatively young in China (between 50 and 55) but about 10 years later in other developing countries in the Region. On average, men and women suffer from this disease for about seven years (Appendix B).

Osteoporosis is the thinning and weakening of bone and results in bone fractures resulting from slight knocks. This disease is much more common among women than men after the age of 50. One out of two women and one in eight men over the age of 50 will experience an osteoporosis fracture.

Sensory impairment
Cataract is a disease of the eye that can lead to blindness. Cataracts can develop among people in their forties and fifties, but these cataracts are usually small and do not lead to loss of sight. Cataracts that lead to vision loss usually occur after about the age of 60. Approximately 90% of people with cataracts live in developing countries and 60% of them are elderly. (Appendix B).

Glaucoma is a disease of the eye which, if untreated, can cause blindness. It is one of the main causes of blindness among older people. Glaucoma is a much more common problem in the developing countries in the Western Pacific Region than in developed economies and is about twice as common among women than men. On average, sufferers have glaucoma for between 9 to 12 years. Its incidence increases with age, so that about 8% of those over the age of 70 have glaucoma symptoms (Appendix B).

Macular degeneration is an eye disease which damages the part of the eye that enables people to see straight ahead and to see fine detail. The symptoms can appear among people in their forties but is more common among those aged 50 or over. The risk of macular degeneration dramatically increases after age 60.

Hearing loss is progressive from young adulthood onwards. It affects the daily living of many older people, especially those aged over 65. About 30-35% of adults between the ages of 65 and 75 years have a hearing loss and half of those aged over 85 suffer significant hearing loss.

Parkinson’s disease is a disease that affects the part of the brain that controls movement. Although about 10% of sufferers are under the age of 40, the average age of onset in the developing countries in the Western Pacific Region is about 65. Rates rise with age and peak among those in their seventies and eighties. The prevalence of Parkinson’s disease is considerably lower in the developing countries of the Region compared with the rates in developed economies. The risk of Parkinson’s disease is similar for men and women (see Appendix B).

Other significant age-related disorders

Although older people can suffer from disorders other than those described above only three further diseases or disorders will be mentioned here.

Urinary incontinence can occur at any age but is much more common among older people – especially older women, for whom frequent childbirth and inadequate treatment of urinary tract infections can cause long-term damage. At least 1 in 10 people age 65 or older suffers from incontinence. A significant effect of incontinence is that it can lead older people to become socially isolated.

Diabetes mellitus (Type 2 diabetes): Rates of diabetes are rising sharply in the Western Pacific Region, especially in many Asian and Pacific Island states, where rates are very similar to the very high levels evident in the developed economies (see Appendix B). The prevalence of diabetes increases with age. The rates for those over the age of 60 are more than double those for 45-59-year-olds. The risk of this form of diabetes is much the same for men and women. It develops, on average, when people are in their late fifties and sufferers have the disease for an average of about 15 years.

Chronic obstructive pulmonary disease is a disease that affects the lungs and creates breathing difficulties. The average onset occurs when people are in their early sixties and sufferers typically have the disease for about eight years. Men are slightly more prone to this disease. Rates of chronic obstructive pulmonary disease are especially high in China (see Appendix B).

Mental health

Mental health is an increasingly important health problem in both the developed and developing world. Levels of detected disorders are higher in developed countries but are, nevertheless, also high in developing countries and appear to be increasing with urbanization and increasing substance abuse. Statistics are available in some countries/areas for the levels of mental disorders among older people in the Western Pacific Region. Mental health is a significant health issue in the Region.

Among the affluent countries in the Region, mental and neurological disorders account for 27% of the total disease burden and 30% of the noncommunicable disease burden. In the Region’s developing countries, about 15% of the total disease burden and 25% of the noncommunicable disease burden is due to mental disorders. The lower figures in the developing countries may be due to lower levels of detection, but are also due to the higher rates of communicable diseases.

Despite the levels of mental diseases and disorders, there is a low level of awareness of the burden of mental disease in the Western Pacific Region. In half of the countries in the Western Pacific Region less than 1% of the health budget is spent on mental and

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neurological disorders and many countries do not even have a mental health policy.\textsuperscript{21}

**Dementia**

Despite being largely restricted to older people, dementia is not a natural part of ageing. The two most common forms of dementia found among older people are:

- Alzheimer’s disease (approximately 50% of all dementias); and
- Vascular dementia (approximately 20% of all dementias).

There are no reliable data on the rates of dementia in developing countries, due partly to the lack of culturally relevant measures.\textsuperscript{32} In developed countries, Alzheimer’s disease occurs in about 3% of adults aged 65-74. Those over the age of 85 have a 25% chance of contracting Alzheimer’s disease. The best estimates of diagnosed dementia among older men and women in the developing countries in the Western Pacific Region indicate rates that are about two-thirds the levels in the developed countries. In the developing countries dementias begin, on average, when people are in their early seventies and persist until death – about eight years later. Rates are slightly higher among women (see Appendix B).

The nature of dementia differs according to the type of dementia, but all are associated with neurological damage. Dementias affect memory, language, ability to communicate, personality, mood and other characteristics on which normal social life depends. They can have major effects on the quality of life of elderly sufferers and their carers.

The cause of Alzheimer’s damage is not fully understood, while multi-infarct dementia is the result of the cumulative effects of a number of mini strokes. Since the causes of many dementias are not yet known, effective prevention strategies are not an option at this stage. No cure is available for Alzheimer’s disease (the most common form of dementia), but medication and behavioural strategies can assist with its management.

**Depression**

Depression is common among the elderly, although the actual levels in developing countries are not known precisely. Obtaining good information on rates of depression among older men and women in developing countries would require age- and culture-relevant measures of depression. However, the evidence is that depression often occurs together with other diseases such as dementia, heart disease, stroke, diabetes, cancer and endocrine diseases. Apart from the distress caused by depression, it can, if untreated, worsen the effects of these other conditions and make their treatment more difficult.

Depression is underdiagnosed among the elderly both because of a lack of expertise among health practitioners and due to the mistaken belief that the symptoms of depression are a normal part of ageing. It has been estimated that in developed countries approximately 1%-3% of people aged over 65 suffer from severe depression, with a further 10% to 15% suffering milder forms.\textsuperscript{33} Depression is often confused with the other diseases with which it is frequently associated and is, therefore, left untreated. High suicide rates among the elderly are associated with high, but undiagnosed rates of depression.

**Alcohol dependence**

Alcohol dependence is a mental health disorder which has many physical consequences. High alcohol consumption is strongly implicated in depression, strokes, high blood pressure (hypertension), urinary incontinence, osteoporosis, coronary heart disease, gout, oral cancer, congestive heart failure and many other ailments.

Alcohol dependence among the elderly can be one of two types. Some alcohol problems are longstanding and by later life this dependence has created many other physical problems. Longstanding alcohol dependence is very difficult to treat successfully in

\textsuperscript{21} WHO. Op cit. Ref 24.


later life. Other alcohol problems may be much more recent and begin when other diseases create pain or depression, or following the grief and loneliness from losing a partner or close family member. Short-term alcohol abuse is more amenable to treatment.

Suicide
The underdiagnosed levels of depression among older people contribute to the relatively high suicide rates of older citizens. Elder suicide is normally linked to undiagnosed mental disorders and is very common in some countries.\(^{34}\) Suicide attempts among older people are better planned and more successful than among younger people.\(^{35}\) Current research indicates that mood disorders (e.g. depression), a history of suicidal behaviour, hopelessness, personality style (e.g. shy, timid, hostile, fiercely independent, or neurotic) physical disorders and functional impairment should be the focus of suicide prevention measures.\(^{36}\)

Suicide rates increase as people grow older. For example, in China the male suicide rate in 1990 was 38 per 100 000 among men aged 45-59, but was 104 for those aged 60 and over. Among other countries in the Region the suicide rates are lower, but still increase with age. In the area containing most of the developing countries in the Western Pacific Region, the male suicide rate of 18 per 100 000 among men aged 45-59 jumps to 28 for those aged 60 or over (see Appendix B).

### Actions

#### Directed towards decision-makers
1. Advocate for the development of mental health strategies at national, regional and local levels.
2. Increase decision-makers' awareness of the importance of mental health problems among some older populations.
3. Urge a greater proportion of health budgets to be directed towards mental health programmes among the elderly.
4. Increase the awareness and understanding of doctors, health visitors and other health workers of the risks of depression and suicide among older people.
5. Improve training of health workers so that there is an increased understanding of the interdependence of physical, mental and social health.
6. Integrate mental health provision into other health delivery programmes.
7. Develop improved methods for detection of depression among older people and train health workers and other community workers to detect depression and make use of the effective treatments that are available.
8. Increase public understanding of mental health and dispel the stigma attached to mental health problems.
9. Develop community-based suicide prevention programmes designed especially for older people and to assist families and health workers in understanding the risk of elder suicide and the associated risk factors.

#### Directed towards individuals
1. Increase knowledge of symptoms of depression.
2. Increase understanding of risks of suicide.
3. Encourage older people with symptoms of mental health problems to seek help.

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The major health problems of older people are chronic, noncommunicable diseases and disabilities. Any strategy designed to improve the health of older people requires a firm understanding of the factors that contribute to the development of these diseases. This section outlines the broad range of factors that contribute to these chronic health problems. Rather than focusing on just the medical determinants of chronic disease and disabilities, this section seeks to place the diseases of ageing in developing countries within a broad social, cultural and economic context.

Figure 3 summarizes many of the factors that affect health outcomes. Within the inner circle are six classes of health determinants. The way in which these determinants affect health depends on the cultural and gender context within which they operate. The effect of all these is, in turn, dependent on a person’s particular life history and stage in the life course.

Cultural determinants

A person’s health is affected by their behaviour and by the wider environment in which they live. Values, beliefs and traditions play a central role in the health behaviour of older people and in the opportunities available to them to adopt healthy modes of behaviour. These cultural elements affect the ways in which a society:

- views growing older;
- values older people and their contributions;
- enables older people to participate in the society;
- understands diseases and disabilities in later life.

Values and traditions also affect the extent to which families play a part in supporting older people and the extent to which coresidency is acceptable to both the elderly and their families. The health needs of a person who has a family nearby who can provide care and housing will be quite different from those where the family has moved away and the older person is isolated and without the day-to-day support a family can provide.

The extent to which the culture sanctions healthy and unhealthy behaviour also plays a central role in the levels of health in any society.

For example, where disabilities are thought to be an inevitable and natural part of ageing, older people and those around them may do little to manage or avoid these problems.
society. For example, a culture in which smoking is regarded as a sign of sophistication and alcohol consumption as a sign of virility will produce unhealthy lifestyles. Any attempt to promote health must be framed within the context of these cultural beliefs and will involve challenging them.

Similarly, a culture will regard certain types of behaviour as appropriate or inappropriate for particular age groups. Where exercise and activity are seen to be inappropriate for older people, diseases and disabilities related to inactivity are likely to increase. To tackle inactivity among older people will first involve challenging the cultural belief about exercise and activity among the elderly.

Economic and social determinants

Health also has a social context. Health and ill-health are socially distributed – the higher in the social hierarchy people are, the healthier they tend to be. The more socially disadvantaged people are, the more likely they are to suffer from disease and disabilities and the younger they will die.

Social position affects health for two main reasons: poverty and disempowerment. Poverty is a strong predictor of poor health: the poorer people are, the more likely they are to suffer from ill-health – at any stage in the life course, including later life. It has been shown that older people in poverty have a much lower level of functioning than those who are financially well off. Poverty has especially important implications for health in later life. Poverty throughout the life course has a cumulative effect, whereby many of the impacts are especially evident in later life. Furthermore, poverty is more common among older people and this means that the capacity of older people to deal with health problems is more pronounced than among younger age groups.

Social position also affects health because it is linked with social isolation, disempowerment and a loss of control over one's life. The less people feel in control of their own life and future, the less likely they are to engage in health-promoting behaviour (see pages 37, 82).

These two factors, poverty and disempowerment, affect health through a variety of means, some of which are discussed below.

Nutrition

Good nutrition plays a role in disease prevention throughout life – including later life. Poor nutrition is implicated in a wide range of later-life diseases including heart disease, hypertension, diabetes, osteoporosis, stroke, incontinence and a range of different cancers.

Poor diet is associated with social position. In general people lower on the social ladder eat less nutritious food and more harmful food. Part of the reason for this appears to be that the better, fresher and more nutritious food is often more expensive. The effect of poor diet compounds over a lifetime and this means that the effect of social...
position on health will be especially marked in later life.

Affordability and access to health care
Another factor associated with good health is the ability to purchase good health care once illness strikes. Access to good doctors and ability to afford medicines and treatments affect recovery rates, the duration of illnesses and mortality. Where surgery is required or health appliances would help (e.g. hearing aid), money is essential. The wealthier members of any society are more able to take advantage of medical advances to manage diseases.

Housing and neighbourhood environment
Housing quality is also related to health in later life. Poor heating, dampness and poor sanitation will aggravate diseases and disabilities and make recovery more difficult. Inappropriate housing increases the risk of falls, reduces mobility and can make it more difficult for a person to get out into the community. The capacity to obtain suitable housing or to modify a house to the needs of an older person is linked to financial resources.

The location of housing is also important. Housing near industrial areas with dangerous pollutants, in poorly drained areas, or subject to high noise levels will have an ongoing and cumulative effect on health. Living in an unsafe neighbourhood can make an elderly person anxious and reluctant to get out into the community or to exercise. In addition, neighbourhoods that are not elder-friendly because of poor lighting, steepness, lack of footpaths, steps and poor transport will make it difficult for older people to participate in the community and benefit from a sense of belonging. The social isolation and lack of sense of control that can stem from a neighbourhood that is not elder-friendly will result in poorer health outcomes (see page 37).

Given the importance of families in most developing countries, it is important that suitable housing is available near family members and friends. Where family members have migrated to cities, the isolation of older people in rural areas is an increasing problem that has negative health consequences. Providing housing options close to families or supportive friends can help alleviate the social isolation to which some older people can be prone.

Stress
Stress and anxiety are an important source of ill-health. Stress releases adrenalin which is a biological response to help deal with fear. The effects of stress are cumulative. The hormones released under stress affect the heart and the immune system, which, if they are continually subject to these hormones, can be more vulnerable to disease. While helpful in the short term, continual stress and anxiety can lead to medical disorders such as depression, high blood pressure, heart disease, a weakened immune system and stroke.

Social factors can contribute to stress and anxiety. Financial insecurity can contribute to stress, as can concerns about future health. Where older people are financially or socially vulnerable and their health and financial future are uncertain, the resulting stress can increase susceptibility to disease. For many older people, the damage of stress occurs earlier in life but reveals itself in the diseases of later life.

In the developing world, the rapid rates of urbanization and poor conditions in many of the rapidly expanding urban areas is likely to have had a negative impact on mental, physical and social health. In the Western Pacific Region, the level of urbanization has increased from 17% living in urban areas in 1950 to 37% in 1995, and this is expected to rise to more than 50% by 2015. Overcrowding, pollution, poverty, dependence on an uncertain cash economy, high levels of violence and the disruption of social support

networks will add to stress and affect mental and physical health.\textsuperscript{54}

Migration to cities has also had negative effects on mental, physical and social health for those remaining in rural areas. Not only are older people in rural areas more isolated, there is also typically very little by way of mental health services in rural areas. One recent study reported that, in Hunan province in rural China, the suicide rate was 88.3 per 100,000 compared to 24.4 per 100,000 in urban areas.\textsuperscript{55} Other studies have reported much higher rates of depression among women in rural areas than in the population at large.\textsuperscript{56}

Mental health disorders are associated with living conditions and with poverty. Poverty, low education and unemployment all increase the chance of suffering from a mental disorder. In turn, these disorders worsen a person’s economic and social resources, which in turn makes it more difficult to maintain good health or recover from illness.

Social isolation and exclusion
Social networks, family and friendships are a protective factor against ill-health.\textsuperscript{57} \textsuperscript{58} \textsuperscript{59} \textsuperscript{60} \textsuperscript{61} \textsuperscript{62} People who are socially isolated and marginalized are more susceptible to a range of diseases and are at greater risk of depression and suicide. Lack of social support also makes it more difficult to deal with and recover from ill-health.

Feeling valued is also an important protective factor against ill-health.\textsuperscript{63} \textsuperscript{64} In some societies, older people are marginalized. Rapid change has meant that their skills are less valued and retirement may mean that they are no longer economically productive. Where ageing is regarded as something to avoid and where older people feel unwanted rather than valued, they are more likely to suffer ill-health. Where ageing is also associated with loss of control, dependence and a sense of powerlessness it is associated with ill-health.\textsuperscript{65} \textsuperscript{66}

Education and illiteracy
Illiteracy can be a powerful barrier excluding older people from active participation in a modernizing society. Illiteracy can create a sense of powerlessness and loss of self-esteem in a rapidly changing society where traditional skills and knowledge are devalued. By encouraging literacy, the opportunities to work and participate in the society are increased and this in turn can improve a person’s economic circumstances and social well-being. This can encourage independence as people grow older and enable older people to actively participate in better health behaviour.

Work
Although many older people may no longer be working, their health can show the accumulated effects of a lifetime of work. Older people who have worked in jobs that have been physically demanding, unsafe or involved exposure to harmful products and damaging work practices will show the accumulated effects more than those who have had a more advantaged employment.

\textsuperscript{55} Xu et al, 2000
\textsuperscript{56} WHO. Op cit. Ref 33.
\textsuperscript{60} Van Doorslaer E. et al. Op cit. Ref 12.
\textsuperscript{63} Wilkinson R.G. Op cit. Ref 10.
Employment that provides little say in decisions and little control over the way work is done is associated with greater depression, more back pain and heart disease. Employment requiring constant use of fine motor movements is associated with arthritis in later life.

Physical environment determinants

Physical environment plays an important part in health. While the physical environment in which older people live cannot be separated from their social and economic environment, it is nevertheless worth highlighting two key aspects of the physical environment that have an impact on health in later life.

Neighbourhood safety: Where environmental hazards, such as dangerous roads, unsafe footpaths, difficult steps, poor lighting, etc, make it difficult for older people to get out of their homes, the risks of ill-health from social isolation and lack of exercise increase.

Environmental pollution: Air, noise and water pollution are three important elements of the physical environment that affect health. Air and noise pollution are especially important in the development of noncommunicable diseases that emerge in later life. Hearing problems and lung disease (e.g. chronic obstructive pulmonary disease) that emerge in later life are the result of a lifetime of exposure to damaging environmental factors.

The roles of these aspects of the physical environment are becoming increasingly important determinants of health in the Western Pacific Region as the level of urbanization increases rapidly (see pages 7, 37, 70, 78). Urban violence and crime have also increased significantly.

Health systems and services as determinants

The nature of health services in any country and region will affect the level of noncommunicable disease. Where diseases are preventable, the extent to which health systems adopt a preventative or a curative approach to health will affect the levels of these diseases in later life. Many, but not all noncommunicable diseases of later life can either be prevented, delayed or made less disabling if steps are taken earlier in the life course to ensure healthy behaviour and a health-promoting environment. However, the ‘find it and fix it’ emphasis in many health systems means that insufficient attention is given to preventing disease and disability in the first place.

Health systems that are not integrated with other sectors will tend to focus on the ‘find it and fix it’ approach of curative medi-

Key points

1. Health is affected by a person’s social and economic environment.
2. Social inequality and poverty are key aspects of the social and economic environment that lead to poor health outcomes in later life.
3. Social and economic inequality lead to poor health outcomes because they are linked to factors such as social isolation, a sense of disempowerment, high levels of stress, poor housing and poor nutrition.
4. To improve the health of older people it is important to change the social and economic environment that contributes to the ill-health of those most affected by poverty.

Actions

**Directed towards decision-makers**
1. Advocate at the local, regional and national levels for regulations to reduce air, water and noise pollution.
2. Urge initiatives at the local level to develop safe, barrier-free public spaces where older people can go easily for both exercise and social interaction. Improving footpaths, installing rails on steps, making lifts available, having traffic lights that take account of poor sight or hearing, and providing good lighting will make public places safer for older people.

**Directed towards individuals**
1. Increase awareness of the ways in which the worst effects of noise, air and water pollution can be controlled.
2. Provide individuals with tips as to how to move about the local neighbourhood with the least risk of falls etc.
A health-promotion approach will encourage the cooperation of the health sector with other sectors. Thus a health-promotion model of health services encourages other sectors such as agriculture, transport, education, industry, housing, etc., to develop policies that encourage better health (see pages 67, 82).

As well as focusing on curative medicine, most health systems concentrate on physical health and neglect mental health. In the countries of the Western Pacific Region, although mental disorders account for about 15% of the total disease burden, less than 1% of the health budget is spent on mental health.

**Behavioural determinants**

While the context in which people live is crucial to health in later life, the way in which individuals live within that context also affects their health. The Active Ageing framework of WHO highlights the role of healthy lifestyles in healthy ageing. It states:

"The adoption of healthy lifestyles and actively participating in one’s own care are important at all stages of the life course. One of the myths of ageing is that it is too late to adopt such lifestyles in the later years. On the contrary, engaging in appropriate physical activity, healthy eating, not smoking and using alcohol and medications wisely in older age can prevent disease and functional decline, extend longevity and enhance one’s quality of life."

Table 5 summarizes the main noncommunicable diseases of later life associated with each lifestyle behaviour.

Whether or not people engage in healthy or unhealthy behaviour involves individual choice. Individuals, therefore, need to be encouraged to make choices that will have positive health outcomes. However, encouraging health-promoting choices is no simple matter. Essentially it involves a twofold approach that targets both individuals and the social and cultural environment in which they make their decisions (see Figure 4).

At the individual level two things are required:
- **knowledge** about the health consequences of behaviour; and
- **motivation** to adopt health-promoting behaviour (see page 78).

At the social and cultural level it is important to create an environment that both encourages and enables individuals to make healthy choices. Developing an environment in which **healthy choices are easy choices** can involve significant social change (e.g. reducing poverty so that there is greater access to nutritious food), legislative change (e.g. outlawing tobacco advertising) or changing the physical

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**Table 5: Lifestyle and noncommunicable diseases**

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Associated with:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking</td>
<td>Lung disease; lung cancer; diabetes; cataract; congestive heart failure; coronary heart disease; high blood pressure; vascular dementia; stroke; emphysema; chronic obstructive pulmonary disease.</td>
</tr>
<tr>
<td>Diet</td>
<td>Overweight; heart disease; congestive heart failure; coronary heart disease; diabetes; high blood pressure; osteoporosis; stroke.</td>
</tr>
<tr>
<td>Obesity</td>
<td>Heart disease; stroke and the mini-strokes involved in vascular dementia; diabetes; high blood pressure; arthritis – especially in the knees; foot problems; breast cancer; high blood pressure; osteoarthritis; stroke.</td>
</tr>
<tr>
<td>Insufficient exercise</td>
<td>Obesity; reduced emotional well-being and failure to relieve stress; poor blood circulation; reduced energy; poor sleeping; osteoporosis; osteoarthritis; increased blood pressure, coronary heart disease; reduced flexibility; poorer balance, poorer bone density and strength; diabetes; stroke.</td>
</tr>
<tr>
<td>Excess alcohol consumption</td>
<td>Liver disease; stomach ulcers; gout; depression; osteoporosis; heart disease; breast cancer; diabetes; high blood pressure.</td>
</tr>
</tbody>
</table>

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infrastructure to encourage exercise and reduce social isolation.

Biological determinants

Genetics
It is difficult to say precisely how much of any disease or disability is due to genetic factors. However, we know that some chronic diseases such as heart disease, various cancers and arthritis do run in families. It has been estimated that about half of the variation in life span is due to factors that are fixed relatively early in life - by the time people are aged 30. However, only about half of this is thought to be due to genetic factors.  

This means that, if we want to increase the life span of the population, we cannot just wait until people get old and then intervene to overcome the illnesses that develop later in life. Interventions early in the life course will be important in contributing to life towards the later part of the life course. It also means that there is no basis on which to be fatalistic - to think that health in later life is fixed by a person's genetic make up.

Ageing
While some physical changes are a natural part of growing older (e.g. menopause in women, changes in cellular division, dietary needs, etc.), most changes associated with later life are neither universal nor ordained to occur at a set age (see page 11). The environment in which older people live and the lifestyle behaviour they adopt can play a significant part in their risk of developing a disease, the age at which it occurs, its rate of progress and the extent to which it disables them from leading an active later life.

Gender

Gender is an important determinant of health in later life. Women are more subject to some diseases and disabilities than men, while men are more prone than women to other diseases. While some of the gender differences in health in later life are related to biolog-

Table 6: Years of health life lost to disease and disability by gender for selected Western Pacific Region countries

<table>
<thead>
<tr>
<th>Country</th>
<th>% of total life expectancy lost to ill-health/disability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
</tr>
<tr>
<td>Australia</td>
<td>9.1</td>
</tr>
<tr>
<td>Brunei Darussalam</td>
<td>13.1</td>
</tr>
<tr>
<td>Cambodia</td>
<td>14.7</td>
</tr>
<tr>
<td>China</td>
<td>11.6</td>
</tr>
<tr>
<td>Cook Islands</td>
<td>12.0</td>
</tr>
<tr>
<td>Fiji</td>
<td>12.3</td>
</tr>
<tr>
<td>Japan</td>
<td>8.1</td>
</tr>
<tr>
<td>Kiribati</td>
<td>12.6</td>
</tr>
<tr>
<td>Lao People's Democratic Republic</td>
<td>16.4</td>
</tr>
<tr>
<td>Malaysia</td>
<td>12.6</td>
</tr>
<tr>
<td>Marshall Islands</td>
<td>12.7</td>
</tr>
<tr>
<td>Micronesia, Federated States of</td>
<td>12.5</td>
</tr>
<tr>
<td>Mongolia</td>
<td>17.8</td>
</tr>
<tr>
<td>Nauru</td>
<td>14.1</td>
</tr>
<tr>
<td>New Zealand</td>
<td>8.5</td>
</tr>
<tr>
<td>Niue</td>
<td>12.6</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>15.4</td>
</tr>
<tr>
<td>Philippines</td>
<td>11.9</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>10.3</td>
</tr>
<tr>
<td>Samoa</td>
<td>12.7</td>
</tr>
<tr>
<td>Singapore</td>
<td>11.4</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>12.9</td>
</tr>
<tr>
<td>Tonga</td>
<td>12.0</td>
</tr>
<tr>
<td>Tuvalu</td>
<td>11.3</td>
</tr>
<tr>
<td>Vanuatu</td>
<td>12.8</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>12.7</td>
</tr>
</tbody>
</table>

cal differences, there are also important social and cultural factors at play.

In all countries in the Western Pacific Region women live longer than men (see Table 3). However, in all these same countries women spend a greater proportion of their life suffering from disabilities and ill-health (Table 6). In other words, while women life longer, their extra years tend to be spent in poorer health and greater disability. This means that health promotion directed to older men and women needs to be shaped somewhat differently by the different health experiences and health profiles of older men and women. Some strategies will need to be targeted much more specifically towards men and others towards women.

The graphs in Appendix B provide details about the extent of gender difference in the health problems commonly found among older people. Table 7 below summarizes the main differences.

In understanding and targeting the gendered patterns of disease and disability in later life, it is crucial that the social and cultural components of health, rather than just the biological components, are addressed.

Differences such as prostate, breast and cervical cancers are clearly biological. But gender is much more than biology. Gender differences in health also relate to:

- the different activities of men and women;
- their different access to resources;
- discrimination in access to health services;
- their different capacity to make their own decisions; and
- their different capacity to participate in community-based decisions and activities.

Furthermore, the greater longevity of women means that more women will live without a partner for at least some of their later life. This means that the experience of later life and the context in which older women live is quite different to that of most older men. Most older men have a partner, while many older women spend some of their later years without a partner.

This means that as well as being attentive to the different diseases and disabilities that stem largely from biological differences, any health strategy must attend to the positioning of men and women and tackle some health problems by addressing the position of men and women in their particular societies.

Women

In many societies women are second-class citizens and suffer systematic discrimination in many areas of life. Greater poverty, poorer education, lower literacy, poorer access to health services, exclusion from meaningful work, caring responsibilities and the greater chance of living alone in later life all mean that women live more of their later life in poor health and suffer disabilities (see Table 3 and Table 6).

The WHO Active Ageing framework has observed that:

> These cumulative disadvantages mean that women are more likely than men to be poor and to suffer...
disabilities in older age. Because of their second-class status, the health of older women is often neglected or ignored. In addition, many women have low or no incomes because of years spent in unpaid caregiving roles. The provision of family care is often achieved at the detriment of female caregivers’ economic security and good health in later life.”

Bonita observed that, because most developing countries do not have publicly-funded social security schemes, ageing women in these countries must rely on the family for security and shelter. However, rapid urbanization and the movement of younger people to the cities means that older women may be left without their family to provide for them. This, she argues, is contributing to the deterioration of living conditions for older women. Poor health services in rural areas and the absence of family members means that these women (who may often be widowed) are left with inadequate support, which is often made worse by their poverty. Those who move to the cities find that they have no place in the urban family structures.

In those countries where poverty and poor nutrition are widespread, the position of ageing women is often worse than in the population at large. Years of childbearing and taking care of the nutritional needs of their families at the expense of their own needs means that by later life many older women suffer the consequences in the form of anaemia and osteoporosis.

The death of a partner has a particular impact on women. Older women are far more likely than older men to live alone. In China, in 1990, approximately two-thirds of women over the age of 65 were widows. This means that older women are more prone to both the poor health outcomes associated with social isolation and the poverty associated with widowhood.

Finally the low social status of women will affect their sense of self-efficacy - their sense that they can do things that make a difference. Health-promotion strategies seek to empower individuals to actively participate in their own health. To the extent that women have a lower sense of self-efficacy, health-promotion strategies targeted at older women will need to be directed at empowering women to advocate and act on their own behalf.

Men

Aspects of being male also contribute to poor health among men. The recent analysis by WHO, Men, ageing and health, concludes that:

“...The battle will be against complacency, against established attitudes, towards a culture in which men would recognize the importance of looking after themselves, a culture of self-care, as opposed to the current common belief of men who regard themselves as ‘indestructible machines’.”

In all countries in the Western Pacific Region, men have a shorter life expectancy than women. Table 7 also documents the diseases and disabilities of later life where men have a higher risk. While some of these differences can be attributed partly to the biological differences between men and women, they are also linked to differences in male and female behaviour. Higher rates of smoking and alcohol consumption are associated with many of the diseases to which older men are more prone. Another factor is the extent to which men neglect their health throughout life. Gendered self identities in which men are encouraged to think of themselves as ‘indestructible machines’ means that men are less likely than women to engage in preventive behaviour throughout their life.

The work demands on many men can also contribute to disabilities in later life. Unsafe working environments, noise pollu-
Key points
1. Gender is a key determinant of health.
2. Gender differences are much more than just biological differences.
3. While some of the links between gender and health are due to biological differences, many are associated with the position of men and women in society.
4. The second-class status of women in many societies makes them more vulnerable to many diseases and disorders in later life.
5. The self image of men can make them more vulnerable to certain health problems.
6. Improving the health of older people will require addressing gender inequities.

Actions

Directed towards decision-makers
1. Target health promotion strategies to the particular needs and disabilities for which men and women are at risk.
2. Work towards greater gender equality where the needs of women are not ignored.
3. Introduce programmes that enable women to control fertility.
4. Initiate programmes that encourage men to take better care of their health.
5. Encourage men to reduce their alcohol and tobacco consumption.
6. Challenge the ‘indestructible machine’ image of men so that men are more open to adopting health-promoting behaviour.
7. Develop programmes that encourage a sense of self-efficacy among women. Develop initiatives that will assist the many women who live much of their later life alone and in poverty following the death of their husbands.

Directed towards individuals
1. Increase knowledge of and capacity to control fertility.
2. Encourage greater gender equity within households.

Lifelong factors: health from a life-course perspective

"Health and activity in older age are ... a summary of the living circumstances and actions of an individual during the whole life span." 77

Health in earlier life provides the foundations on which health in later life is built. Most of the determinants of health discussed earlier highlight the fact that health in later life is affected by factors that operate over the course of a person’s life. This is particularly true of noncommunicable diseases and disabilities, where the appearance of disease symptoms in later life reflects the cumulative impact of factors that have operated over many years. Nutrition and diet, smoking and alcohol consumption can take many years to show their effects. This means that improving the health of older people may mean first improving the health, lifestyle and environment of people well before they reach old age.

Scientists have identified different models of the way in which earlier life affects health in later life.

The critical periods model: This approach highlights the importance of particular life stages (e.g. in utero, infancy, adolescence) in growth and development. 78 Events at these critical stages can have lifelong consequences, which may only show up in later life. For example, low birth weight, which frequently reflects undernourishment during

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pregnancy, increases the risk of heart disease, obesity, stroke and diabetes in later life. Adolescence is the time when most people begin to smoke and is, therefore, critical for later life health. This emphasis on critical periods means that the best, or only time to prevent some health problems is to intervene at these critical stages and prevent the trigger that has largely irreversible, lifelong consequences.

The accumulation model: As people go through life they are exposed to more and more risk factors, which accumulate. It is only in later life that people have had enough exposure to the risks to actually show the symptoms of a disease. For example, clogging up blood vessels begins during adolescence because of too much fat and cholesterol in the diet. This has no visible effect in early adulthood because not enough fat has built up. However, if people continue to eat fatty food for 20 or 30 years, enough fat will build up in the blood vessels to cause heart disease. This means that the best way to prevent later-life health problems is to prevent the exposure to risk factors across the life course – not just in later life.

The multiplier accumulation model: This approach emphasizes that risk accumulation is not random. Exposure to one risk factor can increase the exposure to other risks. For example, a child born to poor parents is more likely to be low-birth-weight. The same child is also more likely to have a poor diet. Together, these two factors increase the chance of illness. Similarly, being protected from one risk can help avoid exposure to other risks.

Actions

Directed towards decision-makers
1. Promote healthy behavior among younger, as well as older people.
2. Make policy-makers and decision-makers aware of the long-term consequences of policies and environmental factors on health in later life.
3. Advocate for better health education in schools.
4. Advocate for research as to the life-course stages that are most critical for later-life health and the establishment of good health behaviour so that interventions can be directed to the most strategic points in the life course.

Directed towards individuals
1. Increase the awareness that many health problems in later life are due to controllable types of behaviour earlier in life.

Key points
1. Health in later life is the outcome of a complex set of individual, societal and cultural factors.
2. Individual factors that affect later life health include biology (genetics and gender) and lifestyle.
3. Many noncommunicable diseases of later life are, in principle, preventible.
4. Prevention methods require the encouragement of individual behaviour and social change that will result in healthier outcomes.
5. Societal determinants of later-life health include social inequality, poverty, gender inequality, environmental health and the structure of health systems.
6. Cultural determinants of health include values regarding health and ageing.
7. Individual modes of behaviour over the life course, not just in later life, are key determinants of health in later life.

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80 Stein C. and Moritz I. Op cit. Ref 77.
A health promotion approach to better health in ageing societies involves two main components:

- assisting individuals to make decisions that lead to better health outcomes (e.g. healthier lifestyles); and
- creating social, economic and environmental conditions that are favourable to good health (healthy settings).

Underlying this second element is the recognition that “Health conditions in developing countries must be viewed in a wider socioeconomic context where nearly a thousand million people are trapped in a vicious cycle of poverty, malnutrition, disease and despair.”

WHO defines health promotion as:

“...a comprehensive social and political process, (which) not only embraces actions directed at strengthening the skills and capabilities of individuals, but also action directed towards changing social, environmental and economic conditions so as to alleviate their impact on public and individual health. Health promotion is the process of enabling people to increase control over the determinants of health and thereby improve their health. Participation is essential to sustain health promotion action.”

Mittelmark has identified four defining elements of health promotion: health impact assessment; local community focus; primary prevention; and empowerment of individuals.

Health impact assessment: This involves establishing systems for systematically evaluating all public policies and programmes, from national to local levels, for their positive, neutral and negative impacts on health.

Local community focus: By strengthening and mobilizing local communities and resources, health promotion seeks to achieve positive health change by transforming neighbourhoods and key institutions, such as homes, schools, hospitals and workplaces, into health-promoting environments. By strengthening the local community capacity to build healthy settings and promote healthy lifestyles.

This dual target of health promotion (i.e. individual behaviour and the settings in which the behaviour takes place) is spelled out in the Ottawa Charter of 1986 (http://www.who.int/hpr/archive/docs/ottawa.html), which sets out five core strategies for promoting health:

- building healthy public policies;
- creating supportive environments;
- strengthening community action;
- reorienting health services; and
- developing personal skills.

behaviour, the health-promotion approach seeks to avoid relying on uncertain external support.

Primary prevention: Health promotion focuses on primary prevention (see page 56), health education and improving the quality of informal care provided by family members. It also includes systems for maintaining health-promotion infrastructure within local health care systems and for training health care professionals on ways to involve patients in developing their own treatment plans.

Empowerment of individuals: Assisting people to take control over and improve their own health by adopting health promoting behaviour and making better use of health care and preventive services.

"Health promotion is in fact enlightened health activism; it is a process of activating communities, policy makers, professionals and the public in favour of health supportive policies, systems and ways of living. It is carried out through acts of advocacy, empowerment of people and building social support systems that enable people to make healthy choices and live healthy lives." 86

By targeting both the individual and public levels, the goal of health promotion is to 'make healthy choices easy, early and exciting, everywhere'. 87

Empowerment and participation

In addition to improving health by directing efforts towards both individuals and the structures in which individuals live, the other central component of health promotion is to "enable individuals and communities to take charge of conditions and circumstances that contribute to ill-health". 88

In other words, health promotion involves mobilizing individuals and communities both to take responsibility for better health outcomes and to use the resources of individuals and communities in building health-promoting environments (settings).

Health promotion emphasizes the importance of empowerment of individuals and communities in producing better health. This involves:
- individuals and communities taking responsibility for healthier lifestyles and settings and;
- enabling individuals and communities to create health settings and behave in healthier ways.

Health promotion at different levels of care

Health promotion can be targeted at any of three levels of care – primary, secondary or tertiary.

Primary: These strategies aim to reduce risks, maintain wellbeing and prevent diseases and disabilities from developing in the first place and will target both individual modes of behaviour and the broader social, economic and environmental context in which people live. By changing this context (e.g. banning tobacco advertising, improving food quality, making good food affordable) the goal is to reduce the risks to ill-health.

Secondary: Since primary prevention and promotion strategies will never eliminate disease and disability, a second line of defence is to intervene in health problems before they progress and become either disabling or incurable. At the individual level this may involve greater access to information and services for health screening to detect problems before they become symptomatic. At the broader level, secondary prevention and promotion may involve preventing health problems becoming worse or becoming disabling. This may involve providing better housing, improving access to health workers or creating a safer environment. It also involves social mobilization and

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advocacy for secondary prevention programmes such as screening for cervical cancer or deafness, adult immunization, or employee compensation for exposure to environmental hazards.

Tertiary: Where a disease or disability advances, its effects will require management. This is the task of tertiary prevention. In cancers this may involve therapies or pain management. With Alzheimer’s disease or Parkinson’s disease it will involve assisting the sufferer with the tasks of daily living or providing symptomatic relief. For post open heart surgery patients, this may involve patient education on appropriate diet, physical and sexual activity and stress management.

Medical versus health promotion models

Many health strategies are tertiary-level strategies – they have adopted the ‘find it and fix it’ model which focuses on curing diseases rather than preventing them.

The dilemma faced in many developing countries is how to allocate the very limited resources available for health. The medical model is one where resources are directed primarily to curative services, where the need for interventions is urgent and visible. While the needs of ill people cannot be ignored, the problem with the medical approach is that failure to attend to health promotion simply creates more sick people.

Developing countries face the particularly difficult problem of very limited economic resources on the one hand and facing the ‘double burden’ of disease on the other: infectious diseases have not been adequately controlled, yet, at the same time the ageing of the population and social changes have produced a rise in degenerative, noncommunicable diseases. HIV/AIDS, together with urbanization, the need for rapid economic development and widespread poverty, all mean that there are large and growing demands for health-related expenditure but very limited resources to meet these demands.

The challenge faced by developing countries is:
- how to direct health expenditures in the most efficient and effective ways; and
- how to draw on other community and individual resources to help meet the health challenges they face.

The health promotion strategy in developing countries needs to be based on a recognition that the economic resources available from governments and donors will be insufficient to meet emerging health needs. Therefore, health promotion strategies will need to:
- respond to major health problems affecting older persons and demonstrate effectiveness in reducing risks, mortality and morbidity;
- increase the yield and sources of funds for health promotion to include funds from local governments, corporations, social security funds, social health insurance, “sin” taxes;
- improve organizational practices and performance of the public sector and ensure that quality improvement programmes are applied to services for older persons;
- Define the role of the state in relation to other stakeholders such as the private sector, civil society, the community and the family.

Settings, populations and lifestyles

The focus of health promotion on context and empowerment has led the Western Pacific

Actions

Directed towards decision-makers
1. Advocate for the redirection of resources towards primary and secondary disease and disability prevention.
2. Initiate programmes that release community-based resources that enhance primary and secondary disease and disability prevention.
3. Encourage health service providers to build in primary and secondary disease and disability prevention opportunities and education when delivering tertiary-level services.

Directed towards individuals
1. Increase individual awareness of disease and disability prevention actions that individuals can take.
2. Encourage individuals to have check-ups and to use health screening opportunities.
Region Regional Health Promotion Framework to emphasize three ways of achieving healthy outcomes: by promoting healthy settings, healthy populations and healthy lifestyles.

Healthy settings: This approach involves targeting the environment in which people live and has led to the Healthy Cities, Healthy Islands, and Healthy Hospitals initiatives. For example, the Healthy Cities initiative has led to action to promote smoke-free environments, safer spaces, better housing and open spaces where exercise is encouraged.

Healthy populations: This approach involves targeting life stages and groups. Since the health needs of people vary according to their stage in the life cycle or their gender, the populations approach encourages initiatives that focus on the health needs and contributions of people at particular life stages. An example of such an initiative is the attention that is now being paid to the health of older people.

Healthy lifestyles: This approach focuses more on the behaviour of individuals and how their decisions and actions can lead to healthier outcomes. Health education, social mobilization and advocacy programmes that have tried to impart information about the importance of not smoking, better nutrition and exercise are examples of the healthy-lifestyles approach.

The goal of health promotion for an ageing population: active ageing

The concept of active ageing emphasizes the importance of improving the quality rather than just the quantity of life among older people (see page 25). It seeks to add ‘life into the years’ and not just add ‘years onto life’. The WHO Active Ageing framework defines active ageing as:

“...the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age.”

An emphasis on active ageing allows people to:

- realize their potential for physical, social, mental well-being throughout the life course;
- participate in society according to their needs, desires and capacities; and
- receive adequate protection, security and care when required.

Key points

1. Health promotion must be directed towards individuals and the wider social and physical environment in which they live.
2. Health promotion needs to target the settings and lifestyles of targeted populations (e.g. gender and life stage).
3. Individually targeted health promotion needs to be directed to behaviour such as diet, smoking, exercise and alcohol use.
4. A lifelong approach to healthy behaviour needs to be adopted.
5. Individually directed health promotion needs to be targeted for different types of individuals, depending on such factors as gender and stage in the life cycle.
6. Environmentally targeted health promotion need to be directed to (a) making healthier choices/behaviour by individuals easier (b) removing unhealthy elements in the wider settings in which individuals live.
7. Rather than relying on central governments to make all the changes needed for healthier ageing, health promotion strategies should seek to enable and empower individuals and communities to bring about health improvements.

Consistent with the general health promotion approach, the Active Ageing framework promotes a balance between individual, family, and community contributions. The WHO framework encourages personal responsibility (self-care), age-friendly environments and intergenerational solidarity. This approach also adopts a life-course perspective. The best way for older people to remain active and to retain the capacity to participate in their own health is to:
- plan and prepare for older age; and
- adopt positive personal health practices at all stages of life.
Ageing and Health
The discussion so far has argued that health promotion must be multipronged. It should incorporate a life-course perspective that recognizes that many of the diseases and disabilities of later life reflect the cumulative effect of factors that have operated over many years. It should also recognize that the environment and settings in which people live have a direct impact on health and enable or limit the capacity of individuals to make healthy choices. Finally, it should seek to encourage and enable individuals to make the choices that lead to better health.

Within this broad framework, we can distinguish between five approaches. These are approaches designed to improve health
by: cultural change; social structural change; mobilizing community resources; supporting families to promote healthy, active ageing; and encouraging and enabling individuals to adopt healthy behaviour.

The cultural change approach

One way of enabling individuals to make healthier choices is to make the culture (values, traditions, beliefs etc) one in which health-promoting behaviour is seen as desirable behaviour. Cultural approaches to promoting lifestyle changes recognize that information is processed within a cultural context. It is one thing to communicate the facts about the harmful effects of a lifestyle (e.g. diet, tobacco use) but these facts will be weighed against the culturally desirable aspects of this lifestyle. While people might accept that smoking is harmful to health, the possibility of harm sometime in the distant future will be put against the cultural benefits that smoking bestows in the here and now.

In any culture, certain behaviour is valued and other behaviour is frowned upon. Particular behaviour is seen to be appropriate for some age groups but not for others. The culture sanctions different behaviour for men and women. For example, where tobacco use and alcohol consumption are seen as signs of youth, vitality, masculinity and sophistication, or eating western style foods is regarded as being ‘modern’, health promotion messages that simply try to communicate factual, health information will be ineffective.

A cultural approach to promoting lifestyle change will be directed at cultural (values) change in the first instance, with the hope that in the longer term individual change will follow. Such strategies require accurate information about cultural norms and values. Where appropriate, the intervention should try to change these norms, values and cultural images. For example, a strategy designed to reduce smoking might learn that smoking is regarded as a sign of sophistication. This information would enable a health promotion campaign to try to change this image to one where smoking is regarded as dirty and distinctly unsophisticated.

Since many of the chronic diseases of later life are the result of the cumulative effect of unhealthy behaviour – often over a lifetime, health promotion approaches directed at cultural or values change need to target younger groups, where lifestyle decisions are made. For example, most people who smoke tobacco begin to do so in their early adult years when smoking is seen as a behaviour that bestows an adult and masculine status. Health promotion strategies directed to cultural change that alters the way in which smoking is regarded need to be targeted at this particular point in the life course.

Cultural change can also include changes directed at altering the ways in which particular age groups are regarded, or towards altering what is considered appropriate, age-related behaviour. Altering the way in which ageing is regarded can play an important part in improving health among older people. Where older people are regarded as passive, inactive and dependent, their behaviour will come to reflect those expectations. If ageing is portrayed in a positive way and is regarded as a time during which people can and are expected to be active and contributing members of the society, then behaviour will reflect these more positive expectations.

A cultural approach to health promotion may also involve resisting particular cultural changes and strengthening elements of a traditional culture. For example, many of the lifestyle changes that are so damaging to health are the result of the adoption of western behaviour (smoking, diet etc). Cultural changes in many Western Pacific Region countries are reducing the extent to which extended families can support older family members in ways that enable active ageing. While the forces of modernization and urbanization are unlikely to be stopped, health promotion strategies may be directed towards ways of strengthening those elements of the traditional culture that promote active ageing.

The structural change approach

Lifestyle is not simply a matter of individual choice. Choices are unevenly distributed in society. Typically wealth brings greater choice - especially where the choices are affected by financial resources. Health choices and behaviour are associated with financial resources. Diet is an example of a health-related choice that is affected by financial resources. In many places, poverty prevents people having sufficient or nutritious food. Purchasing good low-fat, low-salt, fresh food is often expensive and an ongoing good diet will be out of the financial reach of many citizens. Housing has a bearing on health, but poverty denies many people the capacity to have safe, warm housing.

A sense of control and self-efficacy enables individuals to change. The belief that one's own actions can actually make a difference is influenced by a person's position in the social hierarchy. If people lower down the social ladder are to be motivated to change their behaviour, they must have a sense that their own actions can actually make a difference. Addressing people's sense of powerlessness of may be a prerequisite for getting them to change their lifestyle.

Encouraging a sense among older people that they can do something about their health will be an important part of encouraging lifestyle change – especially in societies in which older people are marginalized.

Taking action to improve health requires that a person values good health. But whether or not they value good health can depend on their self esteem and sense of worth. Disadvantaged and socially marginalized groups will often lack this self belief and thus engage in damaging, self-destructive behaviour.

Structural approaches to lifestyle change may require political action - challenging the power of those whose interests are not in health promotion. For example, cancer rates, heart disease and respiratory disease have
accompanied the growth in tobacco use in developing countries. In Cambodia, China and the Republic of Korea, about two-thirds of males now smoke. One in four tobacco deaths worldwide occurs in the Western Pacific Region. Until tobacco consumption is controlled, tobacco-related health problems will increase. However, tobacco control will require legislation that challenges the power of tobacco companies to undermine health promotion initiatives.

Within the health sector, implementing prevention strategies requires structural changes. It requires refocusing the sector from clinical interventions to preventive and promotion strategies.

Interventions directed at the structural level will try to initiate environmental change such as reducing air, water and noise pollution, or improving workplace safety. Introducing such changes is likely to meet resistance from industry and other interests, since they are likely to involve financial costs. However, there is limited value in convincing people to eat healthy food, exercise more and smoke less if their environment and workplace continue to damage their health.

In many countries, older people are disproportionately poor. Poverty is a barrier to good health, so effective health promotion for the elderly will involve tackling poverty. Poverty reduction, tackling illiteracy and improving education will create a context in which people can make better health choices.

**Key points**

1. The ability to make healthy choices is constrained by a person’s access to social and economic resources.
2. This access is unevenly distributed across society.
3. Enabling people to take action to improve their health and adopt healthier behaviour will require improving the access of poor people to society’s social and economic resources.
4. Reducing social, economic and gender inequalities will lead to improvements in health as the health behaviour and environments of the most disadvantaged are improved.
5. Enabling people to adopt healthy behaviour involves convincing them that their actions can make a difference.

## Actions

**Directed towards decision-makers**

1. Advocate for policies and reforms that reduce poverty. This may include advocating for changes in social structures that produce poverty (e.g. poor education, low wages, industrial conditions, high fertility).
2. Advocate policies that alleviate the effects of poverty. For example, literacy programmes, means-tested access to health care, workplace-based pension schemes, subsidized housing, health care and medical supplies can help alleviate some of the financial ill-effects of poverty.
3. Foster social networks for ageing people by supporting community groups run by older people.
4. Advocate for better public transport and safe communities so that older people can avoid social isolation.
5. Develop outreach activities so that isolated older people can participate in groups and have the opportunity to be part of the community.
6. Urge improved access to education and literacy skills early in life and provide opportunities for ongoing education throughout life.
7. As a means of improving the economic well-being and sense of value of older people, encourage opportunities for older people to participate in the paid workforce. Opportunities for voluntary work should also be encouraged.
8. Advocate for the development of housing options that allow older people to remain connected to their families.
9. Campaign for improved occupational health and safety. Since a great deal of a person’s life is spent working, the conditions in the workplace will have a cumulative and long-term impact on health. Ergonomics, repetitive injuries and workplace carcinogens are just some of the workplace factors that affect health status long after leaving the workforce.

**Directed towards individuals**

1. Encourage actions that help address the social consequences of poverty. Encourage social participation by marginalized groups, and promote a sense of dignity and empowerment among those that are disadvantaged. Challenge dependency among those who have learned to be dependent and provide the means by which people feel able to take some responsibility for their own health.
2. Encourage and enable older people to get out of their home and join groups and mix with family and friends.
3. Encourage older people to continue to work in the paid or voluntary work sectors.
only be effective among the more advanced sectors of society and in the more developed countries.

The link between gender and ill-health is a further example of ways in which structural changes will be required to produce healthier outcomes. The second-class status of women in many societies contributes to a greater proportion being affected by chronic disease and disability (Table 7). Structural changes which improve the position of women in developing societies will be required before the health disadvantage of women can be reduced.

**Intersectoral approaches**

Traditionally, health has been the business of the ‘health sector’ – doctors, nurses and hospitals. The focus has been on curing illnesses and helping people to live with their disabilities.

Because many of the determinants of health are not under the direct control of health services, health-promotion models see health as the business of all sectors of government, the non-government sector, community groups, families, churches etc. Indeed, to leave health to the health sector is to marginalize health. The health-promotion approach is to promote health as the concern of all sectors. This means, for example, that health can be promoted by the education sector by improving health literacy and reducing illiteracy generally (Health-promoting Schools). The agricultural sector can play a role through the production of nutritious foods; the communication sector can assist with health education for all ages; the housing sector can encourage age-appropriate housing that is safe and reduces social isolation; the public works sector can ensure better planning and infrastructure, help avoid overcrowding and provide safe neighbourhoods; and the transportation sector can help by providing public transport so that older people are not so prone to social isolation. In other words, rather than focusing on health care or even a public health policy, the focus of health promotion is to promote healthy policy – where policies across all government and non-government sectors include a health dimension.\(^98\) One goal of health-promotion strategies is to include health-impact assessments in policy development across all sectors.\(^99\)

In practice, achieving a health orientation across all sectors can be very difficult. The interests of health are not always seen to be compatible with other priorities. The pressure for rapid economic development in the developing world can lead to a disregard for the environmental consequences of industrial development; the financial difficulties governments face can make some governments reluctant to curb the activities of tobacco companies; economic pressures mean that governments are unable to fund income-support measures etc. The challenge of health-promotion strategies is to convince government and others that good health is an economic imperative and a foundation of economic development.

A true intersectoral approach requires cooperation rather than competition between sectors. The Western Pacific Region Regional framework for health promotion places special emphasis on developing intersectoral cooperation by building the

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99 Mittelmark M.B. Op cit. Ref 84.
This framework recognizes that economic capital is both unavailable and insufficient on its own to cope with the looming health needs of ageing societies.

Community-based approaches

Structural change will be largely dependent on the actions of central and regional governments. However, a great deal can be achieved at the local community level. A core strategy of health promotion is to strengthen local community capacity to build healthy settings and promote healthy behaviour. This emphasis on the local community seeks both to avoid relying on uncertain external support and to empower individuals in achieving better health outcomes.

“...The world community sometimes acts slowly. People at the local level can influence their situation more directly and often more swiftly. Empowering individuals, local authorities and groups is crucial. Health is not only, and perhaps not even primarily, the concern of doctors and nurses. It is political, a question of influence, power and resources.”

“Change won’t come easy. Advocating community participation means initiating a process of decentralization. Such a process will be a fundamental challenge in the face of the steady concentration of political and economic power in the hands of small elites.”

Local government

Rapid urbanization has meant that a great deal of growth in urban centres has been unplanned. This has resulted in severe overcrowding, inadequate housing, serious traffic problems and environmental degradation and pollution. Apart from the general health consequences of these developments, older people can be especially affected. Air pollution can make the consequences of lung problems (e.g. chronic pulmonary obstructive disease) very serious; noise can make hearing problems worse; and congestion, poor public transport, and crowded, unsafe walkways can all make urban environments unfriendly and unsafe for older people. Local governments can play an important part in trying to plan and regulate urban growth. Greater regulatory control at the local level can make new cities healthier cities.

Using community-based resources

It has been argued that developing societies face particularly demanding health challenges and do not have the economic resources to face these challenges using the ‘find it and fix it’ curative approaches. If a curative approach is adopted to the exclusion of effective health promotion, people will become ill at a faster rate than they can be ‘cured’. If developing countries are to be able to address the health challenges of ageing societies they need to:

- prevent as many people as possible from becoming ill;
- delay the onset of diseases and disabilities so that the proportion of life for which older people are afflicted by diseases and disabilities is reduced; and


101 Haglund B.J.A. Creating healthy environments: A Symposium on the effectiveness of health promotion: Canadian and international perspectives, University of Toronto, 1996.
draw on underutilized resources to enable active and health ageing.

This last action points to the importance of mobilizing the resources potentially available in local communities and families. Mobilizing community, family and personal resources to promote better health will be more cost-efficient than the purely medical model and will make use of a much wider range of disease prevention strategies and resources than are available to the hospital-based clinician. In many places, geographical isolation and a lack of physical infrastructure (e.g. good roads) mean that community-based care is the only type of health care available.

In developing countries, the local community can play a central role in a person's health. It can damage their health or it can improve it.

Economic development has had major consequences for the nature of communities. Industrialization has led to rapid movement from rural communities to large urban centres. The rate of urbanization has been so rapid in many places that there remains a serious shortage of appropriate housing and adequate infrastructure in cities. Equally important, however, is that, with urbanization, old community ties and support systems have been dislocated without alternative informal systems replacing them.

Urbanization has affected social relationships and support systems at two levels. Urban environments are much more anonymous than the smaller rural communities from which many people have moved. While a variety of informal support systems were available in the rural communities, alternatives to these are lacking in many urban centres. In rural centres too, the old support networks have been disrupted by urban migration. In particular, extended family networks have suffered. This is particularly important for the health and well-being of older people. On the whole, older family members have remained in rural areas or have returned to rural areas after retiring. In countries where elder care has been the responsibility of families rather than the state, the disruption of family ties has had serious consequences (see pages 7, 70, 77, 89).

As well as playing an important role in social health, the nature of the local community affects whether older people can engage in healthy lifestyles. Urban living will mean that individuals are unable to produce their own healthy food. Over time, this can change dietary habits and have long-term consequences for later-life health. The local neighbourhood can encourage or discourage exercise – a known factor in the prevention of many chronic diseases. A neighbourhood that encourages exercise and makes exercise a normal part of everyday life will be more health-promoting than one in which exercise is difficult. Older people need exercise-friendly neighbourhoods if they are to be expected to exercise regularly. This requires safe places in which to walk, good footpaths and well designed, barrier-free neighbourhoods and cities. Neighbourhoods need to cater for older people so that they can walk without the danger of debilitating falls. This involves attention to stairs, use of rails, good footpaths and transport systems that take account of the more limited mobility of some older people.

The community can also promote health by preventing social isolation among older people. Where older people become isolated either because of ill-health, death of a spouse or the migration of family members, chronic health problems can be made worse. Depression frequently follows isolation. Poor diet and lack of exercise are associated with isolation, as are problems with alcohol. While the social forces that produce this isolation and the disruption of supportive family ties are unlikely to be reversed quickly, local communities can help reduce social isolation among the elderly. While visiting programmes are one way of doing this, a more effective way is to enable older people to participate in community life. This may involve assistance with transport, mobility aids or organizing group activities.

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Health visitors and community health workers

Health visitors and community health workers are an important community resource for health promotion and disease prevention. They provide a means of promoting good health in the community and mobilizing community resources.

Health visiting has been used in many countries for maternal and child welfare and has been extended to health and welfare support for older people. Health visiting and community health work is based on the philosophy that good health promotion and care must be shaped by and integrated with the context in which people live. The promotion and prevention roles of community health workers include:

1. Health education: With suitable training, health visitors should be able to provide good preventive health advice to older people and their families. Training and good materials are required to enable health workers to fulfil this responsibility effectively. Health-visitor-based health education allows information to be tailored and selected to suit the cultural context and the particular situation in which an older person is living. In this way, community-based health education avoids the 'one size fits all' approach of mass health promotion campaigns.

2. Health screening: By visiting older people rather than waiting for them to visit a clinic, the goal is to screen for health problems among populations where the probability of illness is high. This allows for highly targeted screening with the goal of detecting diseases before they become symptomatic. Early diagnosis increases the chance of effective treatment. 104

3. Health management: When a person has developed a disease, community health workers help manage the symptoms and assist carers. Knowledge of the particular circumstances in which an older person lives helps the health worker propose realistic management strategies. The health worker can locate sources of care assistance and coordinate care needs. Good community-based care helps avoid the unnecessary use of institutional care.

4. Network building: Social networks and a sense of belonging improve health. 105 106 Community health workers link older people to other people, health providers and community groups. These social networks make better use of community resources and help integrate older people into the life of the community.

5. Advocacy: Community health workers can give a voice to those parts of the community that are otherwise unheard. By highlighting the needs of the elderly – especially those living in poverty, health workers may be able to harness more community resources for their health needs and create a more supportive health environment. Lobbying decision-makers on matters ranging from extending a local bus service to implementing legislation banning tobacco advertising will also be an important part of building a health-supportive environment.

6. Process: An important element of the community health worker's role is the way in which health promotion programmes are implemented. The general philosophy of community-based interventions is to involve individuals in their own health, increase their sense of responsibility and efficacy for their


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health and provide opportunities for client input into their own health strategies. The approach is designed to reduce the sense of powerlessness that many people feel. The goal is to provide individuals and families with the means by which they can help themselves and contribute to their own health care, rather than just waiting to be told what to do or to have things done to them.  

Community care

There has been ongoing debate about whether community care or institutional care is the best way of meeting the health and care needs of the elderly. It is important, in the context of this debate, to stress that the majority of older people do not require institutional care and are quite healthy and independent for most of their old age.

The developed countries in the Western Pacific Region have higher rates of institutional care for older people than the developing countries. However, even in the developed countries, only a very small proportion of the population aged over 65 are in or ever use institutional care. Both developing and developed nations in the Western Pacific Region are seeking to use community care as much as possible for older people.

The basic philosophy of community care is to enable older people to ‘age in place’. It respects the preference of most older people, who value their independence and prefer to remain in their own homes and local community. The community-care model also builds on the desire of families to care for older family members as far as possible. Community care has also been developed as a way in which the health needs of ageing populations can be met without a massive diversion of public resources away from other expenditure priorities. The objective of community-care models is to promote healthy ageing in a way that is consistent with community values and is affordable.

Community care includes both formal and informal care. Damron-Rodriguez and Lubben provide an excellent account of the community-care model for aged health. At the formal care level, community-care systems provide services that enable older people to continue to live in the community. The type of support provided will vary greatly depending on the local context but may include:

- modifying the immediate context in which people live in order to minimize the disabling effect of any disorder;
- community nursing;
- paramedical services;
- meals;
- home help;
- personal care;
- home modification and maintenance;
- transport;
- community-based respite care (mostly day care);
- education and/or training for service providers and consumers;
- assessment and/or referral services;
- information and advocacy services;
- social (including neighbour aid) support; and
- carer support.

The informal element of community care is the support provided by family, neighbours and friends. Overall, the informal element of community care is far more substantial than the formal component. Within the informal component, family-based support remains the most important element in both developed and developing countries. The majority of family care is provided by female family members.

The particular form of community care will depend on the nature of local communities, the types of resources available and the needs and preferences of those in the

community. Damron-Rodriguez and Lubben describe four main models of community care. These are:

1. Communal care model;
2. Marketplace model;
3. Case management model;
4. Managed care organization model.

These four models differ according to how the following aspects of care are dealt with:
- **Elder’s role:** How involved is the older person in care arrangements?
- **Self-care:** How is self-care treated in care planning?
- **Social network:** Are family, friends and neighbours integrated into the care plan?
- **Agency care:** Do community agencies compete or coordinate?
- **Payment source:** Do payment sources coordinate funding of services?

The characteristics of each of these models are summarized in Table 8.

1. **Communal care model.** The communal care model relies mainly on volunteer or free care services provided in the community. These free services might be provided by local agencies, the government, religious groups, charities or other community organizations.

In most communities, some level of communal care is available, but this often needs to be supplemented by other forms of community care. Since this care is free it has to be rationed to those most in need or least

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**Table 8: Models of community care**

<table>
<thead>
<tr>
<th>Model of care</th>
<th>Communal care</th>
<th>Marketplace care</th>
<th>Case management</th>
<th>Managed care</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elder’s role:</strong> How involved is the older person in care arrangements?</td>
<td>Older person remains in the community</td>
<td>Older person maintains extensive discretion on care</td>
<td>Case manager moderates older person’s discretion</td>
<td>Case manager moderates older person’s discretion</td>
</tr>
<tr>
<td><strong>Self-care:</strong> How is self-care treated in care planning?</td>
<td>Receives instruction in community support</td>
<td>May purchase instruction and support from market place</td>
<td>Case manager encourages and facilitates</td>
<td>Case manager encourages and facilitates</td>
</tr>
<tr>
<td><strong>Social network:</strong> Are family, friends and neighbours integrated into the care plan?</td>
<td>Mostly uncoordinated</td>
<td>No formal coordination</td>
<td>Case manager encourages and helps coordinate</td>
<td>Case manager strongly encourages and helps coordinate</td>
</tr>
<tr>
<td><strong>Agency care:</strong> Do community agencies compete or coordinate?</td>
<td>A web of volunteer community-based services</td>
<td>Autonomous agencies, generally in competition</td>
<td>Mostly autonomous agencies, but some collaboration</td>
<td>Extensive coordination of formal partnerships</td>
</tr>
<tr>
<td><strong>Payment source:</strong> Do payment sources coordinate funding services?</td>
<td>Free</td>
<td>Uncoordinated payment sources</td>
<td>Often some coordination of payment sources</td>
<td>Robust coordination of payment sources</td>
</tr>
<tr>
<td><strong>Payment type:</strong> What form of payment is rendered for delivered services?</td>
<td>Little or none</td>
<td>Fee for service</td>
<td>Fee for service</td>
<td>Pre-paid capitation for majority of care</td>
</tr>
<tr>
<td><strong>Coordination:</strong> Is there a formalized attempt to coordinate care provisions?</td>
<td>Generally nonexistent</td>
<td>Generally nonexistent, ad hoc if at all</td>
<td>Semi-formalized</td>
<td>Formalized with strong authority given to care manager</td>
</tr>
</tbody>
</table>

able to purchase services. In China, the ‘three nos’ test (no family, no source of income and no ability to work) is applied. The prototype of this model is the Chinese system where the work-unit-based collective (to which the older person once belonged as a worker) is responsible for providing communal care services.\textsuperscript{115}

2. Marketplace model. The marketplace model is based on older people and/or their families locating and paying for the services they want. In effect, the older person or their family decide what they need and coordinate the services themselves. Access to services depends on the capacity of the older person or their family to pay for services.

3. Case management model. The case management model of community care provides for a much more coordinated and integrated system of care.\textsuperscript{116} The case manager is heavily involved in identifying care needs and locating appropriate services. The case manager draws on whatever suitable resources are available – family, local networks and the purchase of specific care and health services. Health visitors and community health workers may perform this coordinating role.

4. Managed care organization model. This model of care has been developed more in the United States of America than in developing countries. It is a development of the case management model that is aimed at containing the costs of care. A case manager coordinates all care and has considerable authority in decisions about what care will be provided, by whom and for how long.\textsuperscript{117} These care managers negotiate the best prices with care providers and specify the type of care to be provided. The managed care is the most highly formalized of the four models and in important respects approaches the institutional care end of the care spectrum.\textsuperscript{118}

Each model relies on as much self care and family support as possible. The philosophy of community health models is to augment, rather than replace, self and family care. By supporting self and family care, the goal is to ensure adequate care, avoid unsustainable demands on families, fill the gaps that are created by different family circumstances and reduce the level of demand on institutional care.

Family-based approaches

In all countries in the Region, family members are the major source of care and support for older people. However, in developing countries there is a greater reliance on family members as a means of sup-
porting active ageing among older people. More developed health systems and government-based income support systems mean that in developed countries older people are not as reliant on families. In developing countries, both cultural values and the absence of government-based support systems mean that older people are more reliant on family members for housing and other forms of support.

Urbanization and population change have major implications for the role of family members in health promotion in later life. Urban migration can mean that older people are left behind in rural locations without adequate financial, health or social resources. Those who move to cities with their children can suffer the social dislocation involved in such a move and the consequences of overcrowding, inadequate housing and environments that may not be conducive to active ageing.

Rapidly declining fertility will have longer-term consequences for men and women in later life. The fewer children a person has, the greater the chances that the older person will be left without family support in later life. Changing roles of women will also have implications for the extent to which women are willing and able to provide high levels of care and support for older family members.

The pressures on families in the face of rapid social change mean that health-promotion strategies need to take this declining family role into account. Strategies also need to be developed to enable families to provide support to older family members. Imaginative ways of enabling families to balance the demands of modern urban society and traditional demands are required.

The individual approach

The lifestyle choices of individuals contribute to their risk of contracting chronic diseases and disabilities. These choices are shaped, but not determined, by the culture and social structure in which a person lives. Individuals still make choices. The goal of structural and cultural change is to make the healthy choices easier. Nevertheless, the individual still has to make those choices.

People who practice preventive health behaviour live longer and have lower morbidity than those who do not. Individual-based strategies of health promotion are designed to persuade individuals to change their lifestyle to eat healthier foods, exercise appropriately, stop smoking and reduce alcohol consumption.

The individually oriented approach is an educational model that seeks to convince individuals to change their health-related behaviour. It assumes that providing accurate information will cause individuals to see the light and adopt healthier lifestyles. The main challenge for individually oriented interventions is to get the information to people in clear and persuasive ways. Examples of this approach are information campaigns that focus on the harmful effects of smoking, the danger of a high-fat diet and the consequences of insufficient exercise. The content of information campaigns vary. Some outline the dangers of particular behaviour, others describe healthy behaviour, some provide tips to assist with behavioural change, while others use fear campaigns.

At one level it is difficult to fault this approach. Individuals do have to change their behaviour. These programmes try to promote individual responsibility and a sense of control over life and this, in itself, can have positive health outcomes. The question is whether information-based approaches are effective in the long run. Human behaviour is not simply a rational response to information. Even where behaviour is rational in that it achieves an individual’s goals, it cannot be assumed that the individual’s goals match those of public health campaigns. It may make sense to get more exercise, smoke less and eat healthier food if you want to live a long and healthy life, but longevity is not

Key points

1. Community care models need to be designed to support, rather than replace family and individual efforts to care for older people.
2. While family-based strategies for care of older family members will continue to be important, changes to family structures that accompany modernization will mean that family supports will need to be supplemented by other ways of assisting older people with health problems.
3. Individual older people are a key part of ensuring they have good health in later life. They need to be enabled and encouraged to make changes and take responsibility for their own health.
4. Changes to a person’s environment will be part of the process of enabling and empowering that individual to behave in a health-promoting way.
5. Health education and literacy is more than making information available. Individuals must be convinced that the changes implied by the information are believable and worthwhile.

Actions

Directed towards decision-makers
1. Advocate for policies that create an environment that makes it easier for individuals to adopt healthy modes of behaviour.
2. Advocate for greater regulation of food quality, better food labelling requirements, banning of tobacco advertising, increasing taxes on tobacco.
4. Develop initiatives to increase access to healthy food at an affordable price.

Directed towards individuals
1. Increase awareness of individuals regarding the benefits of lifestyle changes for health in both the short and long terms.
2. Help individuals understand that many later-life diseases and disabilities are either preventable or modifiable by factors that are within their own control.
3. Assist individuals in making healthy changes by ways such as teaching them to deal with nicotine addiction, reduce stress and control alcohol consumption, and how to build exercise into their daily routines.
4. Provide information about how to change diet, how to cook with different (healthy) foods, and how to make healthy foods enjoyable.
5. Teach older people how to build safe levels of exercise into their daily routines.

Lifestyle change is worthwhile: Individuals weigh up the costs and benefits of behaviour change. These assessments will be based on many more considerations than the simple health outcomes. The particular elements of an individual’s cost-benefits analysis will vary widely but will probably include matters such as:

- the financial cost of change;
- the time required to change;
- an assessment of how much benefit the

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Figure 6: A model of the links between information and action

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The effectiveness of information campaigns depends on how much a person thinks that the effort required and the likely benefits outweigh these personal costs. Change that requires considerable immediate costs with the promise of distant gains is likely to be less attractive than change that brings immediate benefits.

This does not mean that good health information should not be developed or that health literacy is not important. It does mean, however, that health information and health literacy will not be sufficient on their own to produce the required changes. The type of information that is provided and the way it is framed are important. Providing information without addressing cultural and structural factors will be of limited value.

Methods of implementing health-promotion approaches

It is one thing to argue that effective health promotion needs to be directed towards cultural, social, community, family and individual levels, but quite another to know how to go about this targeting. The WHO call for action in 1990 identified three main principles when designing and implementing health-promotion strategies: advocacy, social support and empowerment.123

Advocacy

Health is simply one of the competing demands facing governments and other decision-makers. In many cases, health, especially that of older people, may be a relatively low priority. In order to promote the policy-level changes that are required as part of the package of improving the health of older people, decision-makers and other opinion-makers must be aware of both the importance of health and ways in which healthy ageing can be encouraged.

A core part of health promotion is to promote health by ensuring that health remains high on the public agenda. This means that decision-makers and those who influence opinions need to be convinced of the importance of health as a national priority. This will involve lobbying such people to act in support of health-promoting policies.

Advocacy needs to convince decision-makers that health, including that of the elderly, has economic and political benefits. Such advocacy is normally directed at convincing decision-makers to develop policies and environments that enable individuals to make good health choices.

Advocacy can be directed to health professionals and service providers to develop a better balance between health promotion and disease prevention on the one hand, and curative approaches on the other.

Academics and researchers are also good targets for health advocacy. Good quality research is required to test and demonstrate the most effective ways of preventing diseases and disabilities in later life. If academics can be encouraged to explore the most effective ways of supporting good health, this evidence can be used to advocate for better health policies.

Social Support

Since health occurs within a social and cultural context (see pages 34, 34) a key part of promoting better health is to encourage health-supporting social settings. WHO has advocated a ‘settings’ approach to health promotion that aims to promote health by targeting:

- community organizations and institutions (e.g. hospitals, schools, workplaces) to foster healthy behaviour and promote community action for better health; and
- infrastructure that has an influence on health.

Empowerment

Health-promotion strategies cannot rely on government resources to achieve better health outcomes. An important element of health promotion in developing countries is

123 Dhillon H.S. and Philip L. Op cit. Ref 82.
to mobilize communities and individuals to achieve better health outcomes.

Mobilizing individuals can take two forms:

- encouraging individuals to behave in healthier ways; and
- preparing individuals for community action to work for better health settings.

A key part of mobilizing individuals is to convince them that:

- they can do something; and
- that doing something can make a difference.

Both these can pose challenges in health promotion among older people. Where older people are marginalized, feel disempowered or have become dependent on others (including experts), it can be difficult to convince them that they have the capacity to make decisions and behaviour changes that would make any difference. A sense of disempowerment comes from many sources, including cultural expectations of older people, illiteracy, gender, poverty and social isolation.

The second challenge is to convince older people that anything they do might make a difference. The message that can empower individuals to lifestyle change is that reducing risk factors (e.g. smoking, poor diet) and increasing protective factors (e.g. good diet, exercise) have health benefits at any age.

A further element of empowering older people is to enable them to self-manage their health. This may involve prevention of illness and disabilities or self-management of chronic disease and disabilities if they develop. Recent research has concluded that helping people to self-manage chronic disease has a positive impact on pain, depression etc. The main reason for the beneficial effects of self-management are associated

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**Key points**

1. Health promotion is more than health education
2. Health promotion consists of three main methods:
   a. advocacy to decision-makers to create the conditions for better health and to make the individual's healthy choices easier choices;
   b. developing settings that support health; and
   c. empowerment of individuals and communities to act for better health.

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with a greater sense of self-efficacy. Epidemiological approaches to health care involve:

“...the study of the distribution and determinants of health states or events in specified populations, and the application of this study to the control of health problems.”

Epidemiological approaches are an essential tool in health promotion and health planning.

Social, spatial and age-related health patterns

Epidemiological methods are based on the collection of systematic evidence about the characteristics of people who suffer from particular diseases and disabilities. As well as collecting information about the disease, these data collections also obtain information about the frequency with which diseases appear in particular counties and regions, among different social groups, among men and women, and at different ages, patterns at different times of the year and so forth.

Epidemiological analysis provides a map of the distribution of health and ill-health. This map can show where and among whom particular diseases are most common, and groups where the same disease is rare. These health maps serve many purposes. One important function is to pinpoint where and among which types of people needs are greatest. This information assists in establishing preventative health priorities and in ensuring that health support services and interventions are directed to areas of greatest need. As far as community-based health promotion is concerned, this assists with community planning.

One of the problems encountered in many countries, especially many developing nations, is that good quality statistical information is unavailable and good statistical collection systems have not been established.

Identifying trends

In addition to mapping the distribution of diseases, epidemiological analysis tracks changes over time. Careful tracking helps spot emerging health problems and helps detect those that are declining, thus enabling the deployment of limited resources to areas of greatest need. By anticipating areas of need through trend analysis, epidemiological analysis can lead to early interventions and prevent health problems from escalating out of control.

Discovering correlates and causes

In the process of mapping the distribution of diseases and disease trends, epidemiological analysis plays an important role in finding likely causes of ill-health. While epidemiology cannot locate causes with the methodological rigour of clinically controlled trials, they can, nevertheless, highlight the types of factors which, if modified, should lead to better health outcomes. Even where

Key points

1. Health promotion requires good research regarding the distribution and determinants of health and illness.
2. Mapping the distribution of health and illness helps:
   a. target interventions and promotions more effectively;
   b. identify trends in diseases and disabilities;
   c. identify factors associated with diseases and thus point to possible intervention strategies; and
   d. identify populations in which targeted health screening may be warranted.

Actions

Directed towards decision-makers

1. Advocate for routine health reporting mechanisms so that epidemiological data can be collected in a standardized and regular manner.
2. Argue for training to be made available to health workers so that epidemiological data can be interpreted and applied accurately.
3. Use epidemiological data for planning at the community level. This will help ensure that community-based planning and programme development is based on a sound statistical base.
4. Where available, use epidemiological data to provide a baseline against which to evaluate the effectiveness of health promotion and disease prevention interventions.

Targeted screening

By helping identify the most at-risk groups, epidemiological research provides a basis for targeted screening for diseases as part of disease prevention. While universal vaccination programmes have been effective in controlling many infectious diseases, universal screening is not feasible, necessary or effective when detecting non-symptomatic diseases. Such universal screening strategies, such as for breast cancer, prostate cancer or diabetes, are very expensive and are not necessarily cost-effective. Knowing the epidemiology of any disease will contribute greatly to more effective screening strategies.

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The Challenges of Health Promotion in Developing Countries

The purpose of this document is to outline the factors that need to be incorporated into a health-promotion approach for achieving healthy ageing among the developing countries in the Western Pacific Region of WHO. It has been argued that there is no alternative to health promotion as a way of responding to the rapidly emerging epidemic of noncommunicable diseases and disabilities in the developing countries of the Region.

However, the task of health promotion will not be easy.

Life course challenges
Many of the chronic diseases and disabilities that emerge in later life are the result of the cumulative effect of a lifetime of risk factors. To reduce the risk of chronic disease in later life, the lifestyles of people will need to be tackled much earlier in the life course, when the advantages of such behavioural change are not so evident.

Poverty
The health of older people in developing countries must be seen as part of the wider context in which millions of people are part of a vicious cycle of poverty, illiteracy, malnutrition, disempowerment and despair. Poverty and the poor living conditions (e.g. poor nutrition, poor housing, environmental degradation) associated with poverty are a major impediment to improving the health of older people in developing countries. Unless fundamental changes are made to this wider context it will be difficult to make major advances in improving the health conditions of older people. The challenge of reducing poverty in the short or intermediate term cannot be underestimated.

Economic priorities
Typically, developing countries are seeking to achieve rapid economic gains and development. The normal way in which they seek to achieve this is by industrialization and food production that gives priority to foreign markets and earning foreign exchange. This can mean that insufficient attention is given to the needs of local citizens. This can result in low wages and poverty, poor nutrition and environmental degradation, all of which have serious health consequences.

Most developing countries have limited resources and many competing demands for these resources. International donors tend to encourage activities that promote economic development and have quick and visible outcomes. In this context, the challenge is to convince policy-makers and others that expenditure on the health of older people (many of whom may no longer be economically productive) is more important than other expenditure demands.

The challenge for health promotion is to convince policy-makers that good health is an economic asset rather than a cost – that health is an essential component of social and economic development.

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130 Dhillon H.S. and Philips L. Op cit. Ref 82.
131 Dhillon H.S. and Philips L. Op cit. Ref 82.
Education
Low levels of literacy and health literacy provide particular challenges for a health-promotion approach. This can be a special problem when trying to promote better health behaviour among older people, where there may be poor levels of knowledge about the factors that contribute to the noncommunicable diseases of later life.

The same type of problem can be an issue when advocating at government levels for a health-promotion approach across all sectors of government. In developing countries (and other countries for that matter), decision-makers are not always fully aware of the health implications of public policy decisions in other sectors.

Political stability
Where there is political instability, internal conflict and war, it is extremely difficult to develop health-promoting environments. Not only are the economic resources and priorities of governments directed elsewhere, the regulatory environment to create health-supportive settings is lacking.

Intersectoral cooperation
Health promotion requires a reorienting of health systems from tertiary or curative prevention strategies to primary and secondary prevention models. This reorientation will often be resisted by those whose experience is limited to curative medicine and who have interests in maintaining the current emphasis on the ‘find it and fix it’ approach. This approach may be advocated by doctors, but also by pharmaceutical companies and those who have an interest in the institutions of curative health (hospitals etc.).

As well as reorienting the health system, a health-promotion approach requires that all sectors place a much greater focus on the health implications of public policies in areas that appear to be only indirectly related to health. Not only may decision-makers in other sectors be unaware of the health implications of their policies, their competing priorities may lead them to disregard the health implications of their decisions.

Commercial interests
Some businesses do not necessarily have the health of citizens of developing countries uppermost in their priorities. The desire to market products will often result in poor health outcomes. The role of tobacco companies in marketing tobacco in developing countries is the most obvious example of this challenge to public health. However, the marketing of western food products that are high in fat and sugar, and the aggressive marketing of alcohol, are all examples of commercial interests that represent a tough challenge for health promotion. Commercial promotion of unhealthy products and lifestyles can make it particularly difficult to make healthy choices the easy or attractive choices. Regulation of the activities of some commercial interests is required, but political will is not necessarily sufficient to introduce useful levels of regulation or the policing of regulations. The taxes gained from unhealthy products can be an important source of government funds, and impoverished governments can find it difficult to resist this source of revenue.

The double burden of disease
One of the particular challenges that face developing countries is that the epidemic of noncommunicable disease is developing before the burden of infectious disease has been dealt with. The increasing challenge posed by HIV/AIDS simply makes the burden of disease worse. The difficulty faced by developing nations is to deal with these dual sources of disease without adequate economic resources to do so.

The speed of change
Populations in the developing world will age at a much faster rate than countries in the developed world have (see page 7). It is much easier for countries to adjust to gradual population transitions than to these rapid changes. It is doubly difficult to respond to such rapid changes when the adjustments must be made before a country has developed a level of affluence that allows for the expenditure required to meet the new challenges.
Economic development is occurring at a rapid rate and this has led to rapid urbanization. This has taken place at such a rate that family and social policy systems have not kept pace. Urbanization has, in many cases, disrupted kinship networks and made it much more difficult for them to provide the support for older people that they once did. At the same time, governments have not developed the welfare safety net that is provided in developed countries. The speed of the transition and the economic cost has made it next to impossible for governments to provide for the needs of older citizens.

Empowerment and control
The evidence indicates that health promotion is most effective when individuals and communities are empowered and able to exercise choice and control over their lives. Enabling individuals and communities to act to improve their health is less easy to achieve in some societies. It is especially challenging when working with groups and communities that have been disempowered and who do not have the sense of self-efficacy to take charge of their own health behaviour.
The ageing of developing countries in the Western Pacific Region and the subsequent epidemic of noncommunicable diseases poses a major health challenge. This challenge must be met by countries with limited economic resources and, in many cases, before the problem of communicable diseases is under control. It has been argued that the only way in which the challenge can be met is by adopting health-promotion strategies, rather than relying on the tertiary prevention strategies of curative medicine.

Decision-makers and health workers, as well as individuals themselves, will need to address the lifestyle factors and health behaviour that are contributing to the explosion of noncommunicable disease among older people. However, simply encouraging individuals to behave in healthy ways will not solve the problem. The settings/environments in which individuals live must also be transformed so that they promote the health of individuals and enable them to make healthy choices.

Health promotion must always be a two-pronged strategy. It must encourage individuals to behave in healthy ways and build an environment which both enables healthy behaviour and ensures that the environmental determinants of health are set correctly.

Creating health-promoting environments and enabling individuals to behave in healthy ways can mean that substantial social and economic changes are required. These changes will often be necessary in order to empower individuals to act for health change and to ensure that the health-damaging impacts of social, economic and gender inequalities are alleviated.

Ultimately, healthier outcomes will result when many different elements of a society are working towards healthier outcomes. This means that health promotion will seek to achieve better health through cultural, social and economic change, as well as by health systems reform. Better health will also require that the local community is directed towards achieving health-supporting settings for older people and supporting families and individuals to behave in ways that result in better physical, mental and social health for the grow-
Appendices

Appendix A: Selected resources on the evidence for the effectiveness of health promotion

The most up-to-date and comprehensive review of the evidence of the effectiveness of health promotion is provided in:

The evidence of health promotion effectiveness: shaping public health in a new Europe

This is a report for the European Commission by the International Union for Health Promotion and Education, assessing 20 years of evidence of the health, social, economic and political impacts of health promotion and recommendations for action. Part One: Core document. Part Two: Evidence book. Details can be found at: http://www.iuhpe.nyu.edu/pubs/index.html

Other useful references regarding evidence of the effectiveness of health promotion are:


Raeburn J, Sidaway A. Effectiveness of mental health promotion: a review. Department of Behavioural Science, University of Auckland, April 1995.


Appendix B: Prevalence rates, age of onset and duration by gender for selected diseases of later life in countries in the Western Pacific Region

The statistics below are based on those provided by Murray and Lopez (Murray and Lopez, 1990). While statistics are not specifically available for the Western Pacific Region, most Western Pacific Region countries (bold in lists below) are included in one of the three groups of countries in the prevalence charts.

Established Market economies

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Acute myocardial infarction (heart attack)

![Graph showing prevalence and age distribution of acute myocardial infarction across countries in the Western Pacific Region.](image)
Angina

Cataracts

Breast cancer

Cerebrovascular disease (1st stroke)
Cervical and related cancer

Colon cancer

Congestive heart disease

Chronic obstructive pulmonary disease
Osteoarthritis (hip)

![Osteoarthritis (hip): prevalence, 1990 graph]

Osteoarthritis (knee)

![Osteoarthritis (knee): prevalence, 1990 graph]

Parkinson’s disease

![Parkinson’s disease: prevalence, 1990 graph]

Prostate cancer

![Prostate cancer prevalence, 1990 (males) graph]
Appendix C: Glossary

(WHO definitions as provided in the WHO Health Promotions Glossary http://www.who.int/hpr/backgroundhp/glossary/glossary.pdf)

**Advocacy for health**
A combination of individual and social actions designed to gain political commitment, policy support, social acceptance and systems support for a particular health goal or programme.

**Community**
A specific group of people, often living in a defined geographical area, who share a common culture, values and norms, and are arranged in a social structure according to relationships which the community has developed over a period of time. Members of a community gain their personal and social identity by sharing common beliefs, values and norms which have been developed by the community in the past and may be modified in the future. They exhibit some awareness of their identity as a group, and share common needs and a commitment to meeting them.

**Empowerment for health**
In health promotion, empowerment is a process through which people gain greater control over decisions and actions affecting their health.

Empowerment may be a social, cultural, psychological or political process through which individuals and social groups are able to express their needs, present their concerns, devise strategies for involvement in decision-making, and achieve political, social and cultural action to meet those needs. Through such a process, people see a closer correspondence between their goals in life and a sense of how to achieve them, and a relationship between their efforts and life outcomes. Health promotion encompasses actions, not only directed at strengthening the basic life skills and capacities of individuals, but also at influencing underlying social and economic conditions and physical environments which impact upon health. In this sense, health promotion is directed at creating the conditions which offer a better chance of there being a relationship between the efforts of individuals and groups, and subsequent health outcomes in the way described above.

A distinction is made between individual and **community empowerment**. Individual empowerment refers primarily to the individual’s ability to make decisions and have control over their personal life. Community empowerment involves individuals acting collectively to gain greater influence and control over the determinants of health and the quality of life in their community, and is an important goal in community action for health.

**Epidemiology**
Epidemiology is the study of the distribution and determinants of health-states or events in specified populations, and the application of this study to the control of health problems.

**Health behaviour**
Any activity undertaken by an individual, regardless of actual or perceived health status, for the purpose of promoting, protecting or maintaining health, whether or not such behaviour is objectively effective towards that end.

**Health expectancy**
Health expectancy is a population-based measure of the proportion of expected life span estimated to be healthful and fulfilling, or free of illness, disease and disability, according to social norms and perceptions and professional standards.

**Health literacy**
Health literacy represents the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health.

Health literacy implies the achievement of a level of knowledge, personal skills and confidence to take action to improve personal and community health by changing personal lifestyles and living conditions. Thus, health literacy means more than being able to read pamphlets and make appointments. By improving people’s access to health information, and their capacity to use it effectively, health literacy is critical to empowerment. Health literacy is itself dependent upon more general levels of literacy. Poor literacy can affect people’s health directly by limiting their personal, social and cultural development, as well as hindering the development of health literacy.
Health-promoting hospitals
A health-promoting hospital, not only provides high quality comprehensive medical and nursing services, but also develops a corporate identity that embraces the aims of health promotion; develops a health-promoting organizational structure and culture, including active, participatory roles for patients and all members of staff; develops itself into a health-promoting physical environment; and actively cooperates with its community.

Health sector
The health sector consists of organized public and private health services (including health promotion, disease prevention, diagnostic, treatment and care services), the policies and activities of health departments and ministries, health-related nongovernmental organizations and community groups, and professional associations.

Healthy cities
A healthy city is one that is continually creating and improving those physical and social environments and expanding those community resources which enable people to mutually support each other in performing all the functions of life and in developing to their maximum potential.

Healthy islands
A healthy island is one that is committed to and involved in a process of achieving better health and quality of life for its people, and healthier physical and social environments in the context of sustainable development.

Healthy public policy
Healthy public policy is characterized by an explicit concern for health and equity in all areas of policy, and by an accountability for health impact. The main aim of healthy public policy is to create a supportive environment to enable people to lead healthy lives. Such a policy makes healthy choices possible or easier for citizens. It makes social and physical environments health-enhancing.

Intersectoral collaboration
A recognized relationship between part or parts of different sectors of society which has been formed to take action on an issue to achieve health outcomes or intermediate health outcomes in a way which is more effective, efficient or sustainable than might be achieved by the health sector acting alone.

Settings for health
The place or social context in which people engage in daily activities in which environmental, organizational and personal factors interact to affect health and well-being.

Social capital
Social capital represents the degree of social cohesion which exists in communities. It refers to the processes between people which establish networks, norms, and social trust, and facilitate coordination and cooperation for mutual benefit.

Social networks
Social relations and links between individuals which may provide access to or mobilization of social support for health.

Social support
That assistance available to individuals and groups from within communities which can provide a buffer against adverse life events and living conditions, and can provide a positive resource for enhancing the quality of life.