

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



سالمندی

سالم، فعال، موفق، مولد، متعادل

***Active**

***Healthy**

***Successful**

***Productive**

***Harmonious**

سالمندی

- یک فرآیند بیولوژیک مشترک برای تمامی موجودات زنده که از زمان تولد شروع می شود
- نمیتوان آن را متوقف یا معکوس نمود ولی با مراقبت صحیح می توان آن را به تاخیر انداخت
- (ناتوانی در سالمندی قابل پیشگیری و بطور قابل ملاحظه‌ای برگشت پذیر است)
- این فرآیند از فردی به فرد دیگر متفاوت است.

* ابن سینا در کتاب قانون در طب

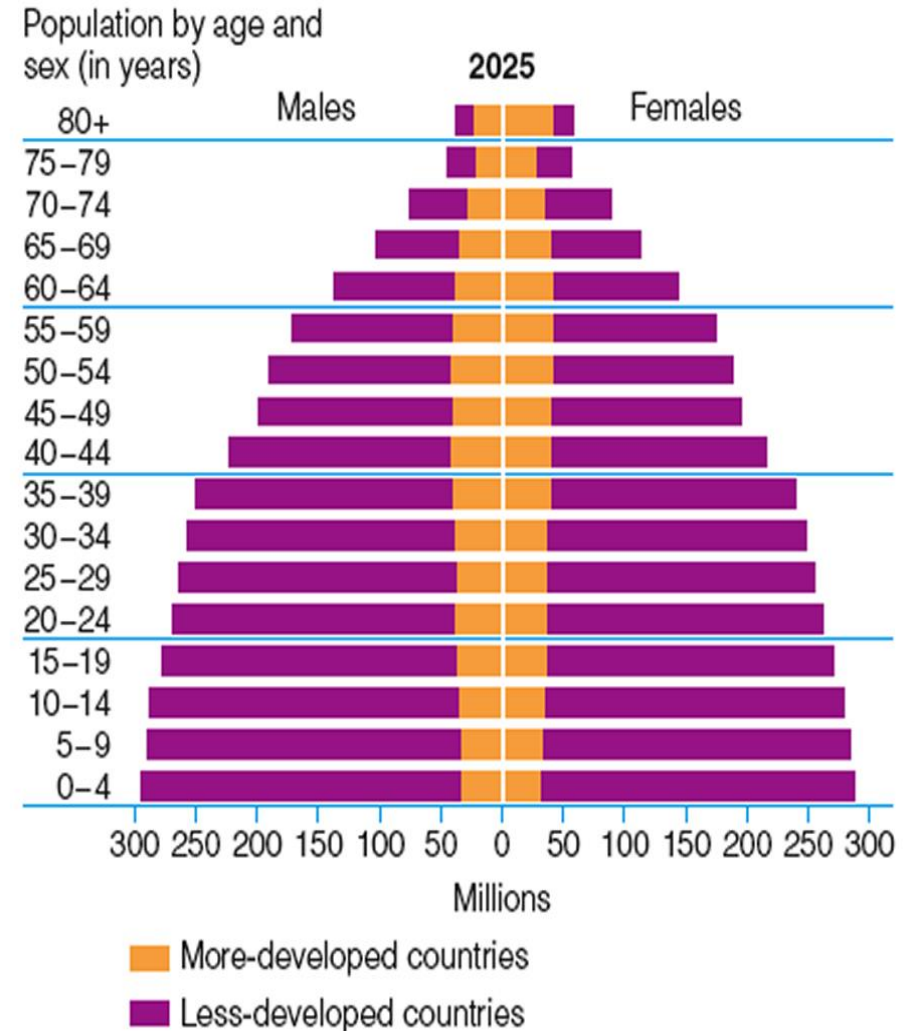
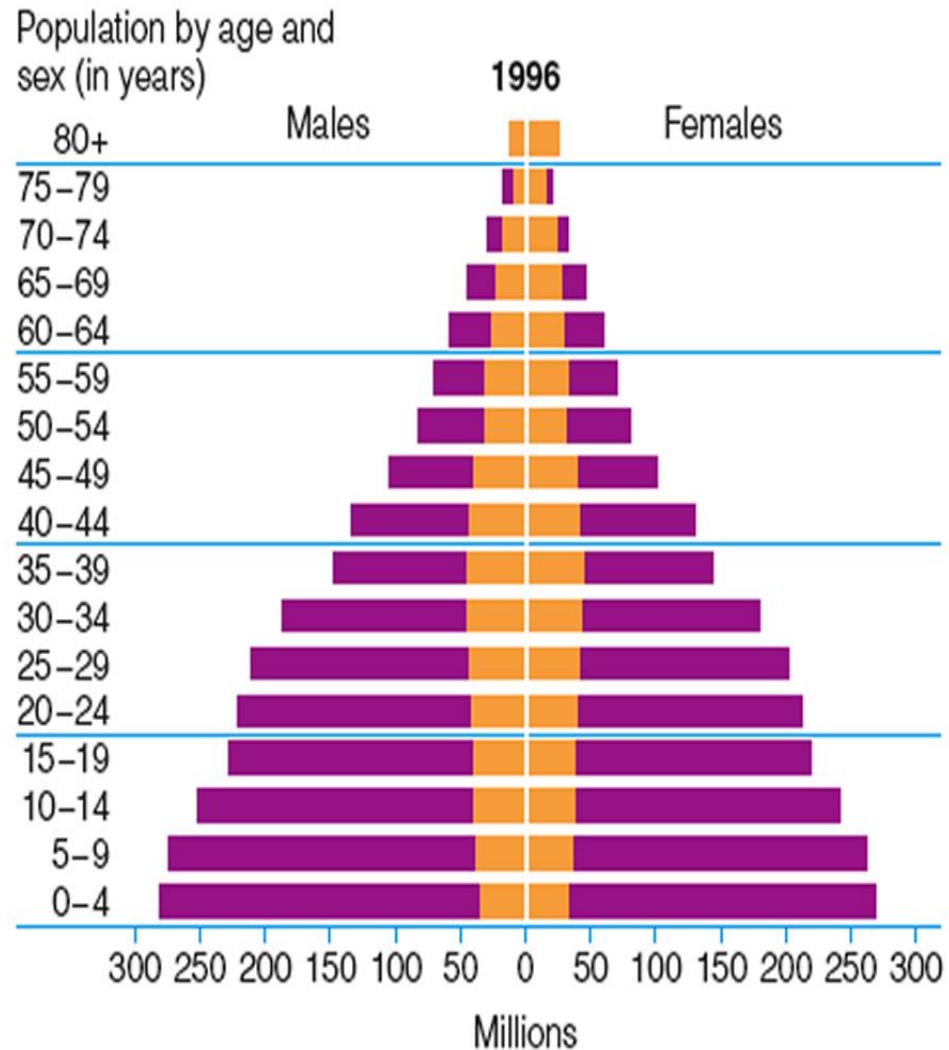
* جرجانی در ذخیره خوارزمشاهی

* مولوی در کتاب مثنوی

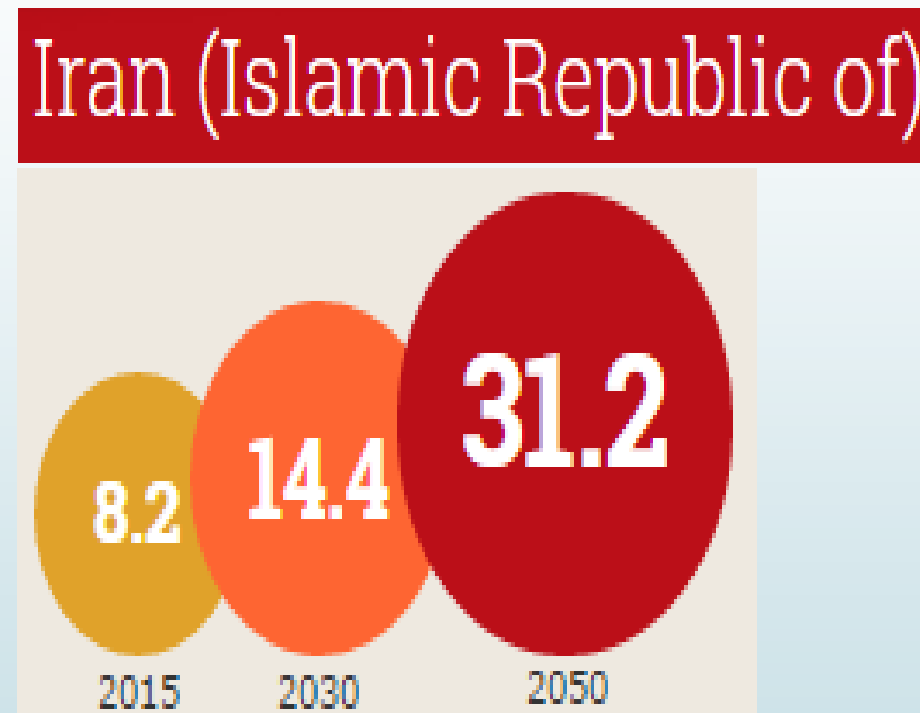
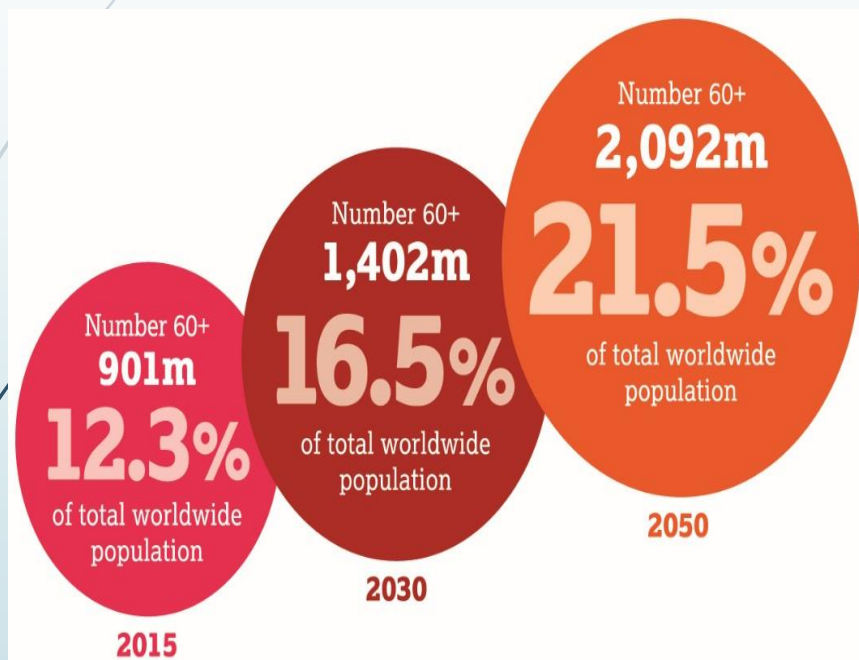
سن 60 سالگی را مرز ورود به سالمخوردگی

قلمداد نموده اند

The Changing Global Age Structure



پیش بینی درصد جمعیت سالمند در جهان و ایران



Number of centenarians

World: 1996: 70,000 2010: 160,000

Dec 2014

*** USA: 72,000 projection for 2050: 1000,000**

***Japan is second to the US, with a population of about 30,000
(90000 in Sep 2022)**

***UK: over 40,000 projection by 2031**

***China : 7000, by 2050, with over 450,000**

***Spain – 10,000**

***France – Over 3000**

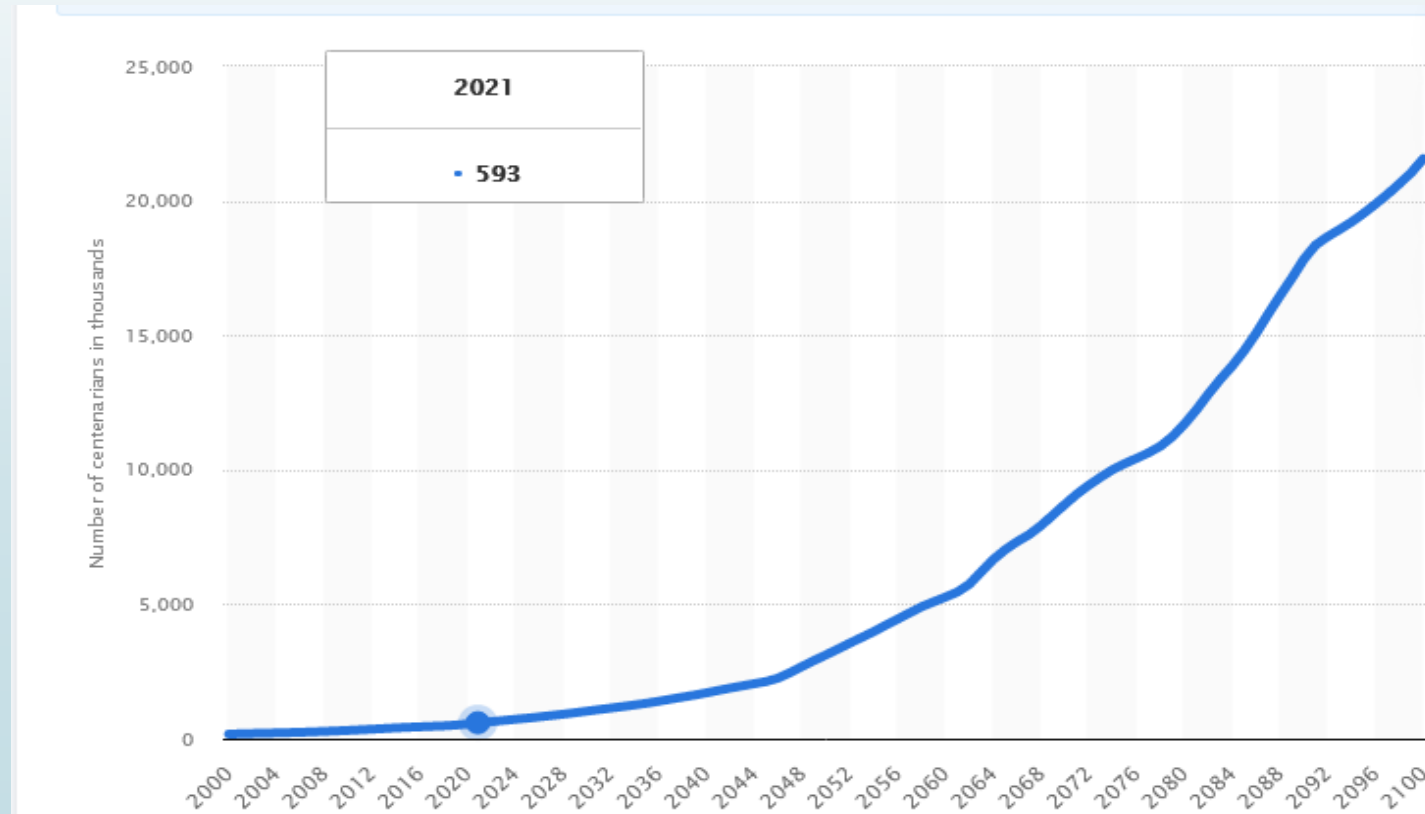
***Canada – Roughly 5000**

***Italy – 4500 – 5000**

Number of centenarians worldwide 2000-2100

Published by Statista Research Department, Oct 18, 2022

The number of people aged 100 years or more (centenarians) worldwide is expected to increase significantly over the coming decades. While there were short of **170,000** centenarians in 2000, this number is predicted to increase to **over 20 million** by 2100. As people on the planet live longer, global life expectancy increases.

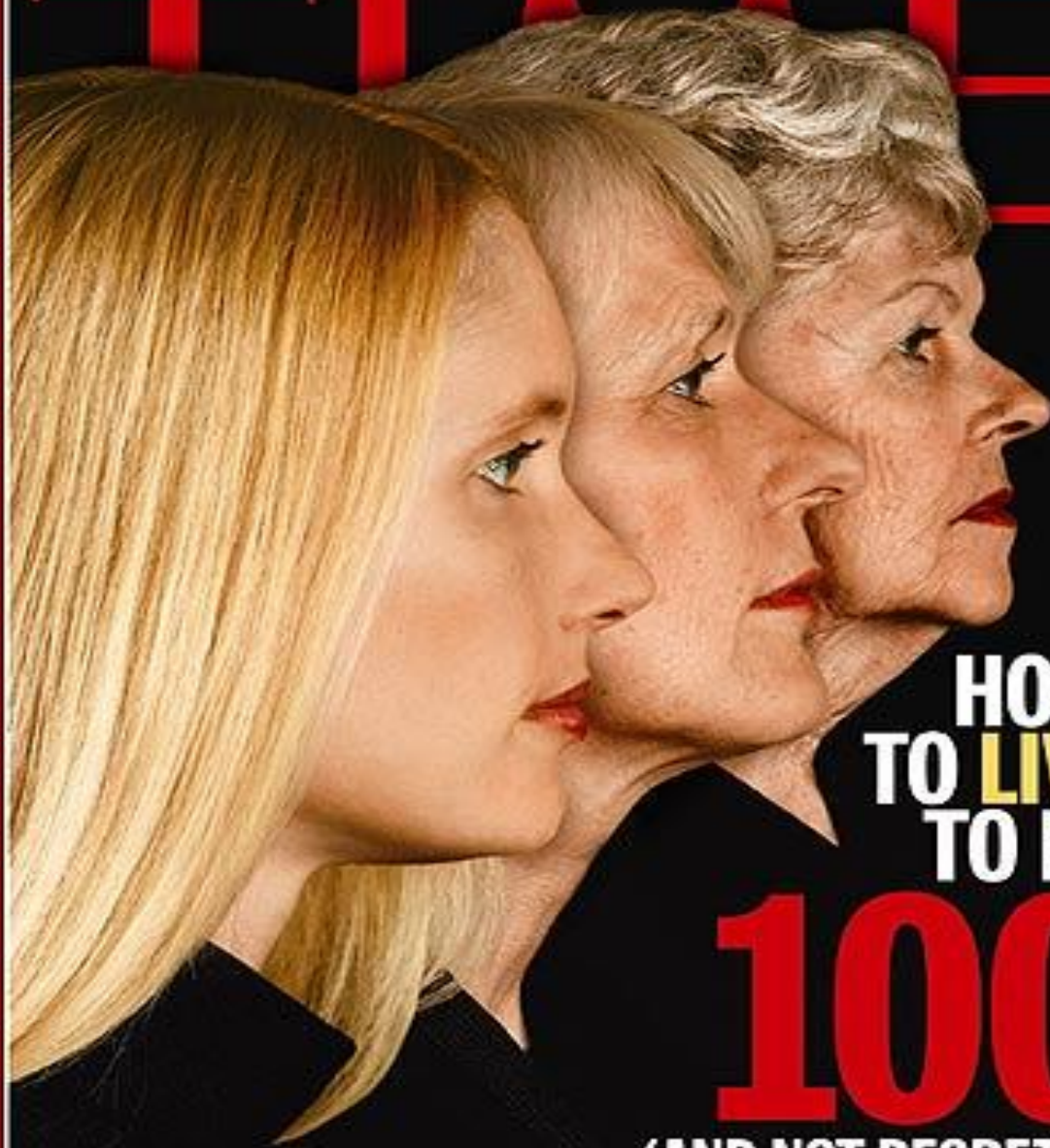


AUGUST 30, 2006

www.time.com AOL Keyword: TIME

FALL PREVIEW: A SNEAK PEEK AT MOVIES, TV, MUSIC & BOOKS

TIME



HOW
TO LIVE
TO BE

100

(AND NOT REGRET IT)

لاک پشت گالاپاگوس



➡ می‌تواند 100 سال عمر کند.

➡ در این سن هیچ نشانه سالمندی را ندارد
و تا زمان مرگ بارور می‌ماند.

* پروفیسور ہانسون *


پدیده پیری به دو صورت: طبیعی و غیر طبیعی

- **پیری طبیعی:** تغییرات ایجاد شده در ساختمان آناتومیک و اعمال

فیزیولوژیک بدن در اثر گذشت زمان بدون ابتلا به بیماری

- **پیری مرضی:** افزایش ابتلا به بیماریها در طول زمان یا فرسودگی

جسمی در اثر ورود عوامل بیماریزا به مرور زمان



سالمند سالم

سالمند بدون اختلالات عملکردی فیزیولوژیک و بیماری

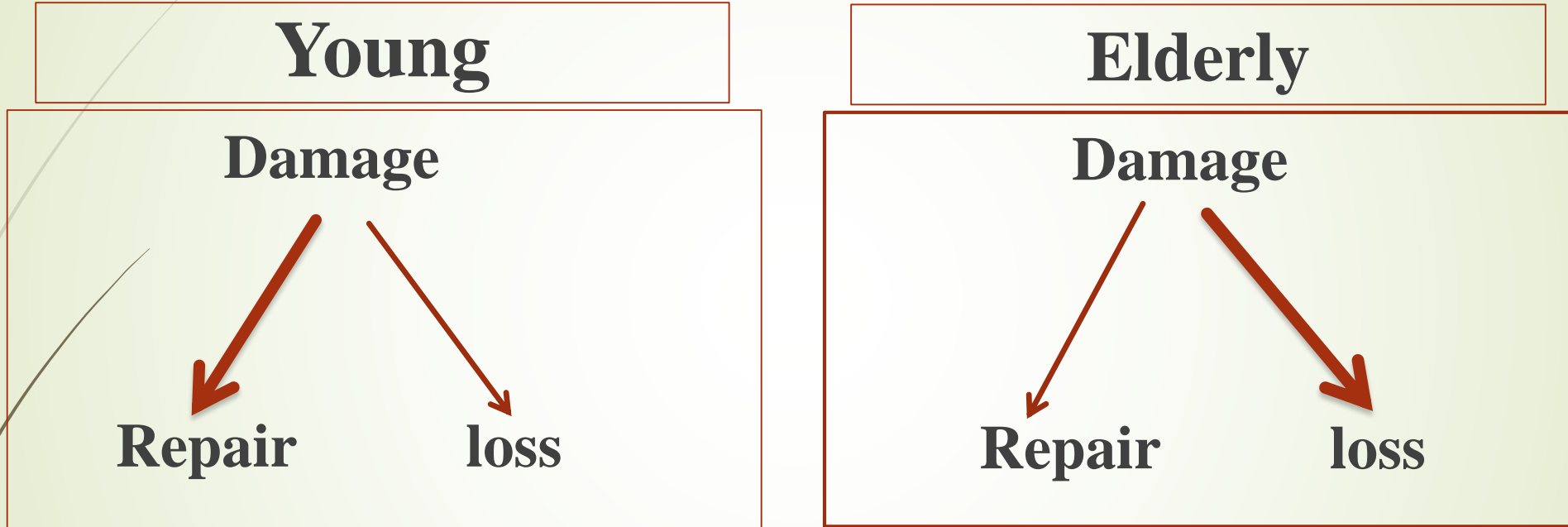
سالمند طبیعی

سالمند با اختلالات عملکردی فیزیولوژیک طبیعی و بدون بیماری

سالمند بیمار

سالمند با بیماری مزمن

NIH




Theories of ageing

Genetics of aging

- ➡ Heritability of age at death: about **25%**
- ➡ Greatest at oldest age
- ➡ Longevity locus on chromosome **3**

Personal Characteristics

- ➡ ****Fixed:** • Age • Sex • Ethnicity •
- ➡ ****Mobile:** • Education • Wealth



Active ageing

نسبت وابستگی (Dependency Ratio)

این نسبت اولین وسیله شناخت عمومی نیروی کار است و حاکی از بار اقتصادی وارد بر جمعیت بالقوه فعال است

نسبت وابستگی کل از طریق تقسیم جمعیت افرادی که در سنین فعالیت نمی باشند (کودکان و نوجوانان زیر 15 سال + افراد 65 ساله و بیشتر) بر روی جمعیت بالقوه فعال به دست می آید.

نسبت وابستگی سالمندان نیز از طریق تقسیم جمعیت 65 ساله و بالاتر نسبت به جمعیت 15-64 ساله قابل محاسبه است.

نسبت سر باری

افزایش جمعیت زیر 15 سال و افزایش جمعیت بالای 65 سال هر دو موجب افزایش نسبت سر باری می شود

اگر چه میزان سر باری در سال 2050 تقریباً با میزان سر باری در سال 2000 برابر است، اما ترکیب این میزان سر باری متفاوت است

در سال 2000، جمعیت زیر 15 سال، سهم بیشتری در این میزان سر باری دارند در حالیکه در سال 2050 سهم افراد بالای 65 سال افزایش می یابد

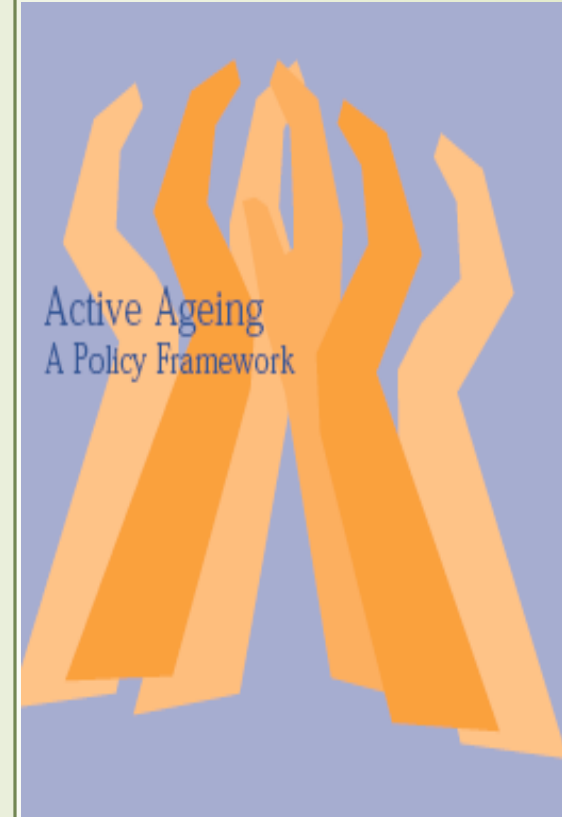
بنابراین ابعاد اقتصادی سالخوردگی جمعیت نیز، نیازمند توجه بیشتری است

موقعیت اجتماعی

- یکی از قدیمی ترین نظریه های پیری شناسی اجتماعی مربوط به دهه 1940 **نظریه نقش** است افراد در طول زندگی نقش های مختلفی را برعهده می گیرند که اغلب این نقش ها متوالی و برخی نیز شبیه همدیگرند
- نظریه نقش موقعیت سالمندان را برحسب سازگاری با نقش های با ارزش اجتماعی تبیین می کند . در جامعه ای که کار در آن دارای ارزش اساسی است بازنشستگی اغلب به معنای از دست دادن منزلت اجتماعی تلقی می شود

سازگاری موفقیت آمیز با بازنشستگی با برعهده گرفتن **نقش های جدید** و کیفیت گذران اوقات فراغت وابسته است و بر نیاز برای انعطاف و انطباق نقش تأکید شده که در این میان زنان به خاطر اینکه نقش خانه داری در مورد آنها تغییر نمی کند ، کمتر این بحران را تجربه می کنند

Active Ageing is the process of optimizing opportunities for health, participation, and security in order to enhance **Quality of life** as people age



**World Health Organization
2002 Policy Framework**

Who is responsible for Active Ageing?

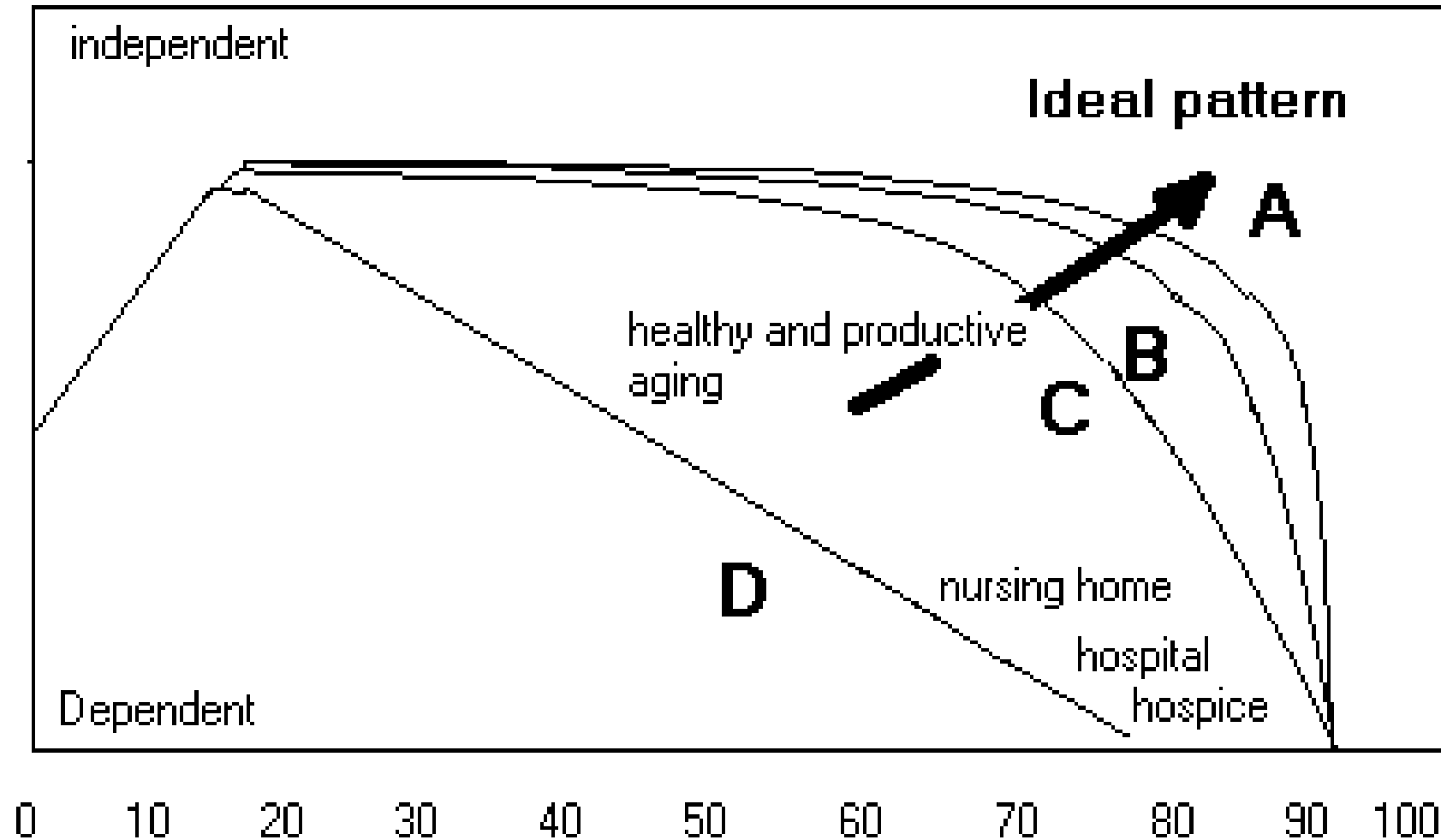
- ➡ **Individuals** are responsible to stay healthy, engaged, and involved
- ➡ *BUT*

Social policies must...

“encourage and balance personal responsibility (self-care), age-friendly environments, and intergenerational solidarity” (WHO)



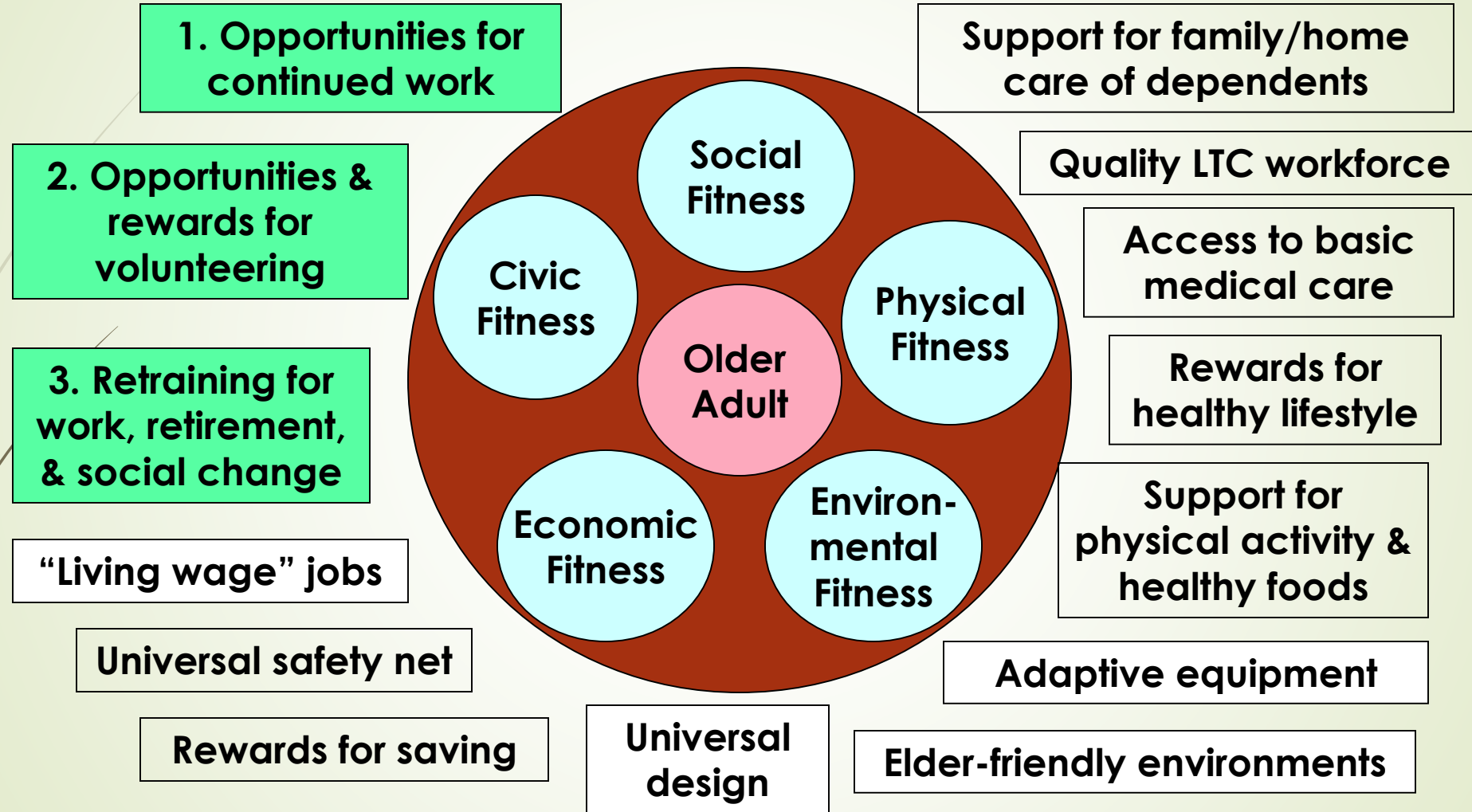
Active Aging means we must stay healthy until death



Active Ageing Consortium Asia Pacific (ACAP)



ACAP's Schema for Active Ageing as Individual, Family & Social Policy Partnership



Social Policy Environment

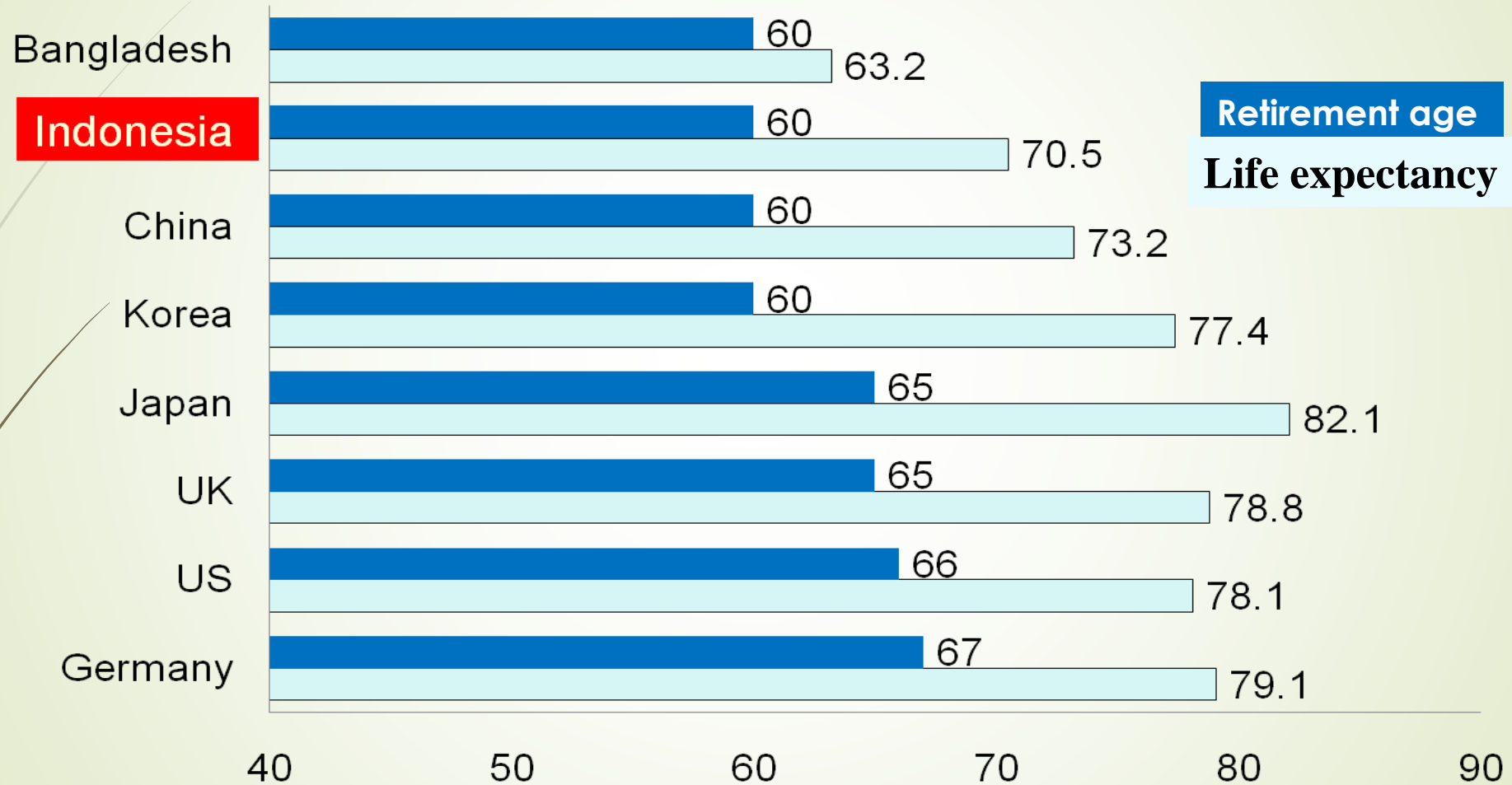
Ways to Support Continued Work

1. Raise retirement age
2. Add incentives for part-time work
3. Create part-time jobs for older people
4. Create small businesses for older workers



Ways to Support Continued Work

Raise Retirement Age



Most countries are raising retirement age

Ways to Support Continued Work

Create small businesses for elders

- Produce leaves and flowers to “decorate” plates of food
- Employs many senior citizens, who pick leaves and flowers, put them on trays, and sell them.

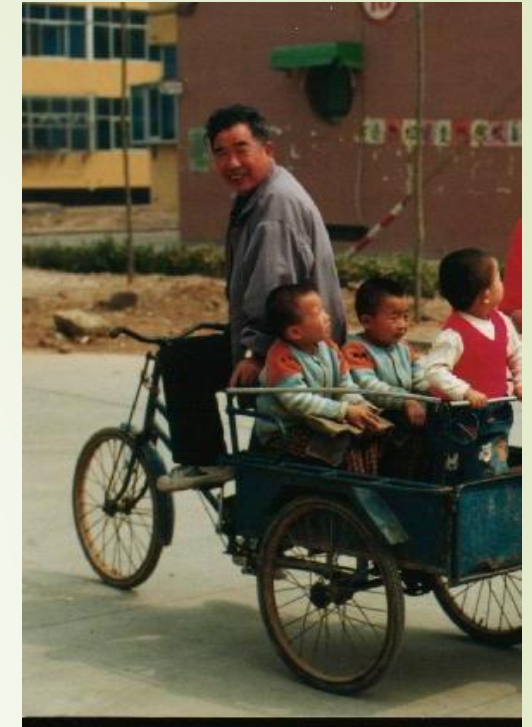


Employees:
Average age = 70
Oldest employee=94



Child Care Business in Wuhan, China

- Elders care for own grandchildren
- But, some elders now get paid for helping unrelated families with their children
 - Adult parents can work
 - Elder gets child from school, watches him/her until parent comes home



University of the 3rd Age and other college options for seniors

- **University of 3rd Age programs in France, Australia, other countries**
- **U3A Online – Australia**
- **Osher Institutes of Lifelong Learning – US**

- **Life-long learning**
- **New friends and social networks**



Ways to Support Volunteering

1. Government
2. Religious organizations
3. Civic and social organizations
4. Business partners





Healthy ageing

Aging and Disease

- ➔ Aging is associated with increase in **incidence** and **severity** of disease
- ➔ Factors predispose individuals to **functional losses** later in life

TABLE 3.9
Diseases of the Elderly

Limited to aging

Osteoporosis
Osteoarthritis
Prostatic adenocarcinoma
Polymyalgia rheumatica
Temporal arteritis

Associated with aging

Known Etiology

Septicemia
Pneumonia
Cirrhosis
Nephritis
Cerebrovascular disease
Myocardial infarction

Unknown Etiology

Adult-onset, Type 2 diabetes
Neoplasm
Hypertension
Alzheimer's disease
Parkinson's disease
Emphysema

Healthy Aging and Independent Living

Healthy Aging:

The process of developing and maintaining the functional ability that enables wellbeing in older age



How do we
achieve
healthy aging?

Maintaining healthy ageing

➡ Health assessment and monitoring

Geriatric Assessment



Maintaining healthy ageing

- **Nutrition**
- **Physical activity**
- **Vice cessation**
- **Co-morbid control**
- **Mental health**
- **Vaccination**
- **Sleep**
- **Environmental control**
- **Injury prevention**
- **Public health**
- **Health assessment and monitoring**

Public health and policy

- **Financial**
- **Housing**
- **Personal security**
- **Disaster management**
- **Fostering the abilities to learn, grow and make decision**
- **Mobility**
- **Building and maintaining relationship**
- **Ability to contribute**

Multi-morbidity and care dependence

- Each unit increase in multi-morbidity count increased risk of dependence by 20% in the fully adjusted model
- Physical multi-morbidity was associated with only a modest increased risk of care dependence
- Dementia, depression, and anxiety were independently associated with incident care dependent every level of physical multi-morbidity

Strategies for Healthy Aging

- **Develop and maintain healthy relationships**
- **Enrich the spiritual side of life**
- **Improve fitness**
- **Eat for health**

YOU Decide How You Will Age

- 30% genes
- 70% lifestyle

(Catherine T. MacArthur Foundation)



Healthy Aging Take-Aways

- Eat a variety of healthy foods
- Move your body more
- Challenge your mind



Successful Aging



Successful Aging

- ➡ *Chronologic* age and *physiologic* age not the same
- ➡ Due to complex interactions of genetics and environment
- ➡ Individuals “age” at different rates and there is significant variability

Successful Aging

- Prevalence of disease increases with age
- **Proposed pathways of aging:**
 - Aging with disease and disability
 - Usual aging; absence of pathology but presence of decline in function
 - Healthy aging; no pathology or functional loss
- **Pathway goals:**
 - De-emphasize aging characterized by decline
 - Emphasize heterogeneity among elderly
 - Underscore positive pathway of aging
 - Highlights possible avoidance of disease associated with aging

Essentials for Successful Ageing

Do interesting things

Social networks

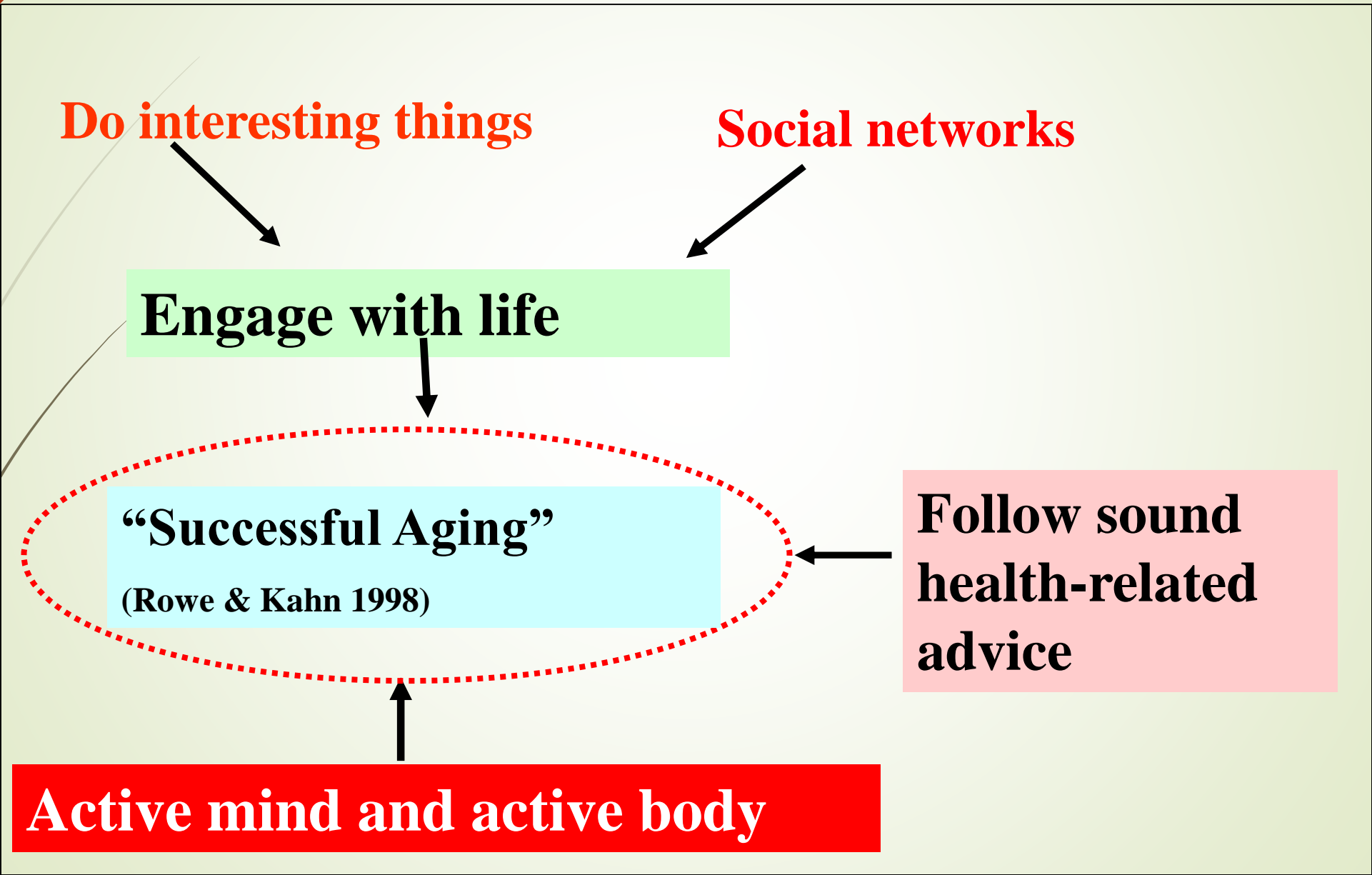
Engage with life

“Successful Aging”

(Rowe & Kahn 1998)

**Follow sound
health-related
advice**

Active mind and active body



Active mind and active body

The Foresight Project

“Learning must continue throughout life.

This can have a direct effect on mental health and well-being across all age groups, and has particular promise in older people.”

Beddington et al. The mental wealth of nations. Nature, vol 455, Oct 2008, 1070-1060.

Physiological benefits of **“Exercise** for elderly well documented
cardiovascular, strength, balance, stretching

Improve blood flow to
the brain

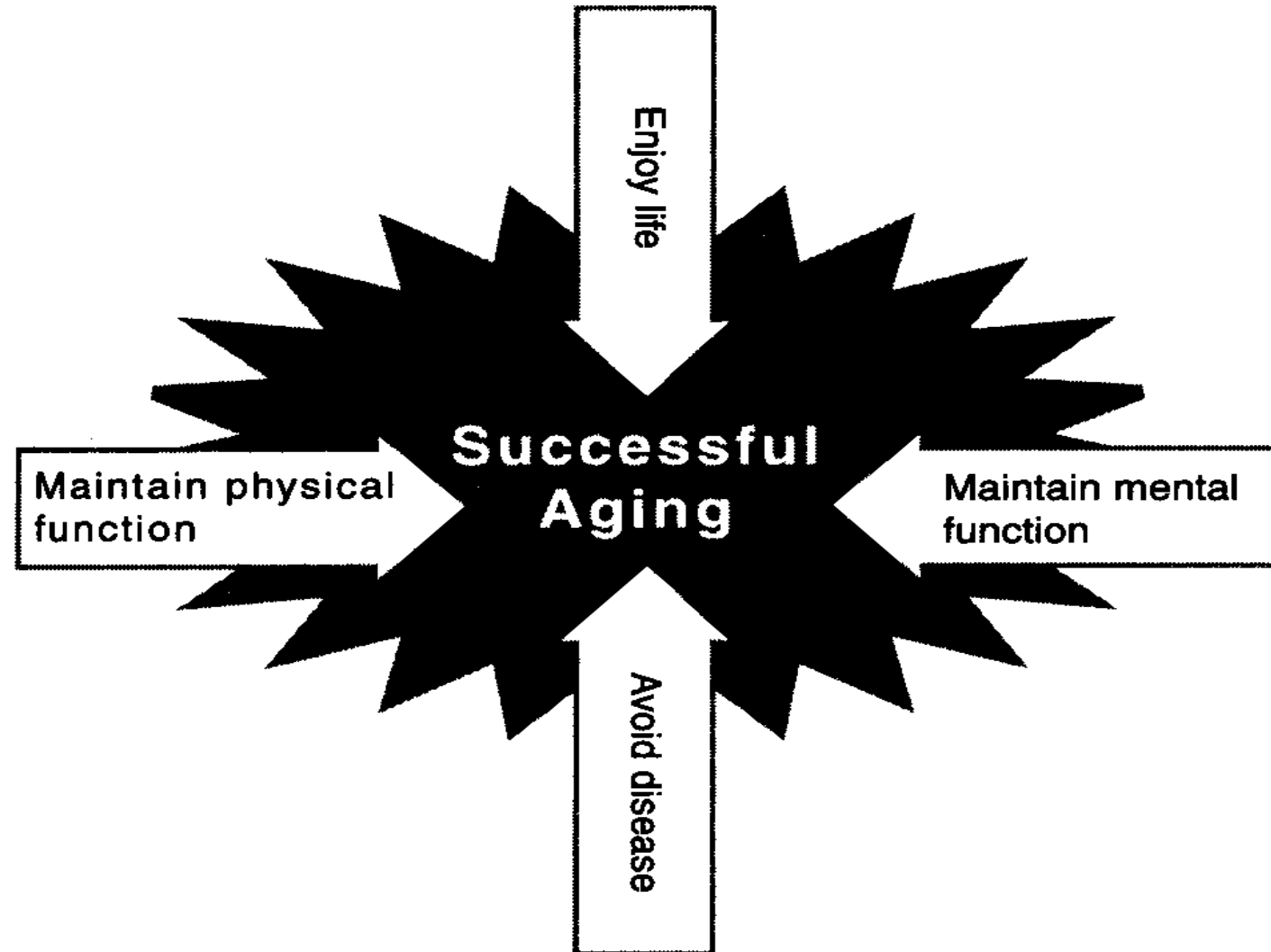
Help stimulate release of
factors critical to brain growth

Successful Aging

➤ Recent research:

- Elderly individuals with *weak muscles* are at greater risk for mortality than age-matched individuals
- Increase in amount and rate of loss of muscle increases risk of *premature death*
- **Physical inactivity is 3rd leading cause of death in US** and plays role in chronic illnesses of aging

Successful Aging – homeostasis less efficient, but still present



پیری هماهنگ یا متعادل Harmonious ageing



**** پیری هماهنگ یا متعادل ، که از فلسفه بین یانگ الهام گرفته
به تعادل بر اساس تفاوت ها به جای یکنواختی می پردازد**

**** این گفتمان جدید با هدف شناخت چالش ها و فرصت های دوران سالمندی، باعث کاهش تنش
بین فعالیت و جدایی می شود**

Harmonious ageing

Decoding successful aging The widely-used conceptual model of successful aging, which was developed by Rowe and Kahn (1997), include three major components:

- 1. The avoidance of disease and disability,**
- 2. The maintenance of high physical and cognitive function,**
- 3. Sustained engagement in social and productive activities**

The key to identifying the problems with successful aging is to disclose its hidden codes.

Harmonious ageing

Critique of the anti-aging strategy: Hiding the physical signs of aging causes a disharmony between body and mind

- The insistence on staying youthful and being active – *the ideology behind successful aging* – imposes a “false dualism” (Andrews, 1999, p.301) between external and internal self-images
- Since all of us will inevitably age, as our prolonged life expectancy suggests, the aging individuals are susceptible for *self-denial and self-hatred*
- The discourse of successful aging itself is a form of *ageism*
- It appears to fight the stereotypical association of old age with social withdrawal, but the problem lies with the lack of structural critique of this discourse

*Ageing Well, Healthy, Active, Successful,
Productive, Harmonious, positive ageing.....*

**** Interaction between:**

➡ **Genes**

➡ **Environmrnt**

➡ **Lifestyle**

Maximizing the chances for independence

- **Healthy Ageing**
- **Active Ageing**
- **Successful Ageing**
- **Ageing Well**
- **Productive Ageing**
- **Harmonious Ageing**

The lifestyle choices we make

Lifestyle

- Healthy Diet
- Physical Exercise
- Brain Exercise

Thanks for Your Attention

