

# GERIATRICS

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You do not heal old age. You  
protect it, promote it and extend  
it.

- sir James sterling Ross.

- Geras – old age and iatrike- medical treatment.
- World is slowly ageing.
- 2001 India has joined the rank of greying nation, (i.e.> 7% pop is 60 plus )
- Life expectancy increase – health care services.
- Medical, social and economic concern
- Major challenge for health departments all around the world.

# Demography of the elderly

- Countries with large population such as India have large number of people now aged 60 years or more. The population over the age of 60 years has **tripled in last 50 years in India**
- the proportion of people over 60 years was
- 5.6% in 1961
- 7.7% in 2001
- 8.6 % in 2011 and by 2050 would be 19%.
- **More geriatric care expert > pediatricians**
- The age sex population structure in developing countries –

# Population census data 2011

- Only 29% in urban area
- The ratio of women/men over 85 years is 2:1
- Sex ratio was 1033 (over 60 )
- Literacy rates are up trending- 27 % in 1991 to 44% in 2011.
- Potential support ratio(dependency ratio)- 10.9 (1961)to 14.2 (2011)
- And approximately 30% are below poverty line.

- **Current scenario** – man power, infrastructure and policies for geriatric friendly care is lacking. And also attitude of health care staff ?
- **Cut off** for old age is difficult to define.
- As per united nations –  $> 60$
- In January 1999 as per the national policy in older person – senior citizen is  $\geq 60$
- Three category
- Young old
- Middle old
- Oldest old.

# definitions

- **Gerontology** - The study of the physical, biological, sociological and psychological changes which are incident to old ages
- **clinical gerontology or geriatrics**- healthcare of aged
- **Senility** – physical and mental weakness
- **Senescence** – process of growing old

- **Hippocrates** noted conditions common in later life
- **Aristotle** offered theory of ageing based on loss of heat
- The word geriatrics was invented by **Ignatz L. Nascher**, a vienna born immigrant to the united states
- The 1<sup>st</sup> Geriatric service was started in **U.K in 1947**.
- **Geriatric department** at Chennai was established in 1978.
- **Post Graduate course in Geriatric medicine** has been started in 1996 at Madras medical college.
- Prof. V.S. Natarajan was the first **Geriatric professor** in India



## AIM OF GERIATRIC MEDICINE

- Maintenance of health in old age by high levels of engagement and avoidance of disease
- Early detection and appropriate treatment of disease
- Maintenance of maximum independence consistent with irreversible disease and disability
- Sympathetic care and support during terminal illness

# HEALTH PROBLEMS

- aging is a continuous process
- **For both gender**
- senile cataract, glaucoma ocular diseases
- Hearing defects
- Reduced muscular strength and coordination
- Accidents and injuries
- Nutritional deficiencies
- Dental problems
- Cardiovascular diseases
- increased susceptibility to infections
- cancers
- List is not exhaustive
- We need to know a lot more.

- **For male**

- BPH
- Prostatic cancer
- Male sexual dysfunction

- **For female**

- Menopausal problem
- Urinary incontinence
- Cancers and diseases of female genital tract
- osteoporosis

# Psychological problems

- mental changes- loneliness, boredom, depression, dejection and worrying about the future.
- Loss of memory, loss of confidence, and a sense of hopelessness.
- senile dementia-
- Alzheimer's disease
- **Elder abuse**

# social

- Retirement -
- Reduction in income ,social status, authority, power, respect and importance.
- Loss of decision making power particularly more complain by women.

# Preventive geriatrics

- Focus is mainly in primary prevention
- Health promotion : healthy ageing-  
developing and maintaining the functional  
ability that enables well being in older age.
- healthy ageing starts from birth.

# Life style and healthy aging

- Diet and nutrition
- Exercise
- Weight
- Smoking
- Alcohol
- Social activities.

# Early diagnosis and treatment

- Screening procedures for health condition
- Breast cancer – mammography
- Cataract – medical examination of eye
- Cervical cancer – pap smear
- Colorectal cancer – stool for occult blood
- Coronary artery disease – analysis of risk, ECG
- Deafness – whisper test and audiometry
- Dementia – mini mental state examination



- Diabetes mellitus – blood glucose estimation
- Diabetic nephropathy- fundoscopic examination, fluorescein angiography
- Dyslipidemia – lipid profile
- Glaucoma – tonometry
- HT – BP measurements
- Lung cancer – x ray chest
- Osteoporosis bone densitometry

- Prostate cancer – PSA level, rectal examination.
- **Periodic health check up:**
- Annual health check up, and adequate health advice
- **Rehabilitation-**
- Enabling person to acquire skill to needed to live independent life.
- Spectacles, dentures, sunglasses, and hearing aids are given free to the needy aged persons.

# Percentage of elderly reporting various ailments

- Visual impairments/complaint – 88%
- Locomotive disorder, joint muscles-40%
- Neurological complaints – 18.7%
- Cardiovascular disease – 17.4%
- Respiratory disorders – 16.1%
- Skin disorders – 13.3%
- Gastrointestinal/abdominal disorder – 9%
- Psychiatric problems 8.5%
- Hearing loss – 8.2%
- Genitourinary disorders – 3.5%

# Indicators of health status of aged

- Age proportional mortality rate
- Age specific death rate persons over 55 years
- Age specific prevalence rates for CVD, cancers and accidents.
- % elders taking three or more drugs/day
- Cumulative percentage of elders undergone cataract surgery
- Proportion of elders admitted to the hospital in the past one year

# Current approaches in geriatric health care services

- WHO – **active ageing** in 2002
- Based on ‘world report on aging 2015’ changed to ‘**healthy ageing**’ from 2015-2030
- **1<sup>st</sup> october** –international day of older person
- **15<sup>th</sup> june** – world elder abuse day
- world health assembly adopted ‘**GSAP -global strategy and action plan for ageing and health**’ in may 2016
- 2020 -2030 has been declared by WHO as the decade of the elderly.

# GSAP

- **Vision** : a world in which every one can live a long and healthy life.
- **Strategic objectives**
- Commitment to action of healthy ageing in every country
- Developing age friendly environments
- Aligning health systems to the needs of older populations
- Developing sustainable and equitable systems for providing long term care
- Improving measurements, monitoring and research on healthy ageing

- **Action plan 2016-2020**
- Five years of evidence based action to maximize functional ability that reaches every person
- By 2020, establish evidence and partnerships necessary to support a decade of healthy ageing from 2020 to 2030



# National approach

- Many ministry -MOJSE , MOHFW

## **1. National Policy On older Persons(NPOP) – MOJSE in 1999 Revised in 2011**

- Principal areas of intervention are
- Financial security
- Health care and nutrition
- Shelter, education, welfare
- Protection of life and property
- Involvement of NGO
- Training of manpower
- Establishment of national council of senior citizens

## **2. Maintenance of senior citizen act, 2007**

## **3. National program for health care of elderly (NPHCE)**

- Launched by MOHFW – in 2010-2011
- After initial thrust responsibility on state government
- Initially in 100 district- presently 600 out of 716.
- 20 medical college – regional geriatric center

# Three components

- Dedicated primary care through district hospital, CHC, PHC, and subcenter
- secondary and tertiary care through regional geriatric center
- Centers of excellence – national centers for ageing – AIIMS delhi and Madras medical college, Chennai.

# Main strategies

- **Preventive and promotive care**- HE through domiciliary visits by trained health workers and weekly clinic at PHC
- **Management of illness** – out door and indoors
- **Health manpower development for geriatric services** - Pg courses – MD geriatric medicine in 4 medical colleges
- **Medical rehabilitation and therapeutic intervention**
- **IEC**- mass media, folk media and other communication channels and camps
- **LASI** – longitudinal ageing study of India by IIPS  
Mumbai- follows 60,000 individuals across 36 states

**THANK YOU**