Shanghai Overview

- Demography (2003)
  - Total residents: 13,417,700
  - Sex ratio: 1.01:1 (M/F)
  - Aging rate (≥ 60 yrs): 18.98%
  - Birth rate: 4.28‰
  - Death rate: 7.52‰
  - Natural increase rate: -3.24‰
  - Floating population: 4,987,900
Health indices (2004)

- Average life expectancy  80.29 years old
- Infant death rate  3.78‰
- Maternal death rate  10.79/100,000
Leading Causes of Death

Cardiovascular Diseases: 32%
Cancer: 29%
Respiratory Diseases: 14%
Others: 25%
Cancer Incidence in Shanghai
IARC Scientific Publication No. 155
Cancer Incidence in Five Continents, Vol. VIII

Edited by D.M. Parkin, S.L. Whelan, J. Ferlay, L. Teppo and D.B. Thomas

2003; 782 pages
Numerous graphs and tables
With CD-ROM
ISBN 92 832 2155 9
US$ 200

IARC CancerBase No. 5
GLOBOCAN 2000
Cancer Incidence, Mortality and Prevalence Worldwide

Edited by J. Ferlay, F. Bray, P. Pisani and D.M. Parkin

2001
Software on CD-ROM
US$ 30

Source of population

Multiple primary rules used
IACR rules (1990)
Cancer care facilities

- 3-level general health care network, including more than 400 hospitals and community health service centers.
- The first-level facilities are all the community health service centers providing predominantly primary health care.
- The second-level facilities are the district hospitals, most of which have a Cancer Department.
- The third-level facilities are all the municipal hospitals and the Shanghai Cancer Hospital.
- Most of the second- and third-level facilities provide radiotherapy, cancer surgery and chemotherapy services.
The Crude incidence trend during past 30 years
Registry Data in 2002

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>New cases</td>
<td>23,036</td>
<td>18,426</td>
<td>41,462</td>
</tr>
<tr>
<td>Crude incidence</td>
<td>344.49</td>
<td>279.20</td>
<td>312.06</td>
</tr>
<tr>
<td>Died cases</td>
<td>16,803</td>
<td>10,749</td>
<td>27,552</td>
</tr>
<tr>
<td>Crude mortality</td>
<td>251.28</td>
<td>162.88</td>
<td>207.37</td>
</tr>
</tbody>
</table>

- Cancer account for 28.79% of total death
<table>
<thead>
<tr>
<th>Cancer Category</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung</td>
<td>4873</td>
<td>1992</td>
</tr>
<tr>
<td>Stomach</td>
<td>2668</td>
<td>1454</td>
</tr>
<tr>
<td>Breast</td>
<td>0</td>
<td>767</td>
</tr>
<tr>
<td>liver</td>
<td>2542</td>
<td>1045</td>
</tr>
<tr>
<td>Esophagus</td>
<td>1062</td>
<td>378</td>
</tr>
<tr>
<td>Pancreas</td>
<td>760</td>
<td>686</td>
</tr>
<tr>
<td>Colon</td>
<td>718</td>
<td>691</td>
</tr>
<tr>
<td>Rectum</td>
<td>620</td>
<td>523</td>
</tr>
<tr>
<td>Brain and other nervous system</td>
<td>340</td>
<td>286</td>
</tr>
<tr>
<td>Prostate gland</td>
<td>300</td>
<td>0</td>
</tr>
<tr>
<td>Bladder</td>
<td>308</td>
<td>113</td>
</tr>
<tr>
<td>Cervix uteri</td>
<td>0</td>
<td>293</td>
</tr>
</tbody>
</table>
Survival Case

Up to end of year 2002:

- Survival cases: 116,776,
  account for 0.88% of the city population
- 31.77% of total cases survive over 5 years
- Among these survival cases, mostly are breast (18.60 %), stomach, colon, rectum and bladder cancer.
Predictive estimation

- Shanghai will be on ageing surge in 2015: proportion over 60 yr. will be 25% over 65 yr. 20%
- The situation will continue to 2050
- Cancer, CVD and other chronic diseases will be a bomb-like increasing
Cancer prediction

- Cancer incidence in 2015 will be over 400/100,000, and new cases will be over 50,000 per year.
- Survival cases will reach over 200,000 yearly, account for 1.5% of city population.
- Data in 2002 tell us: increasing speed of cancer is underestimated so far.
Common Risk Factors

- Ageing
- Dietary habit
- Tobacco use
- Infectious Disease
- Alcohol Intake
- Obesity
Ageing population

- Shanghai already entered the ageing society, proportion over 60 yr. is 18.25%; over 65 yr. is 14.04%
- Cancer incidence of 60 yr. and over is 1108.15/10万; of 65 yr. and over is 1255.98/10万
Cancer incidence by different age groups in 2002
Dietary habit

- Westernizing dietary
- Grain food and dietary fiber reduced.
- Calories and fat intake increased
Tobacco using

- Smoking rate among urban male reach to 66%, among rural male 80%
- Smoking rate among 15~18 adolescent is over 10%
- There is an increase trend of female smoking
- Incidence and mortality of lung cancer in male is ranked first cancer category.
- Second hand smoking is common to women.
The Prevalence of smoke in Shanghai during 2001-2004

Data Source: Health Document of Shanghai
Infectious diseases

- High prevalence of HBV infection
- High incidence of liver cancer
- HBsAg positive rate is about 10% in general population
- Cervix uteri cancer increasing is related with HPV infection
- Nasopharyngeal cancer and EB virus
Alcohol intake

- Alcohol over intake among male residents is 18%
- No effective measures take over alcohol over intake in Shanghai so far
Obesity

- High calories, high fat and less fiber food intake. Lack of exercise and sedentary habit.
- Prevalence of sedentary habit reach to 30%, over-weight 19%, obesity 6%
- Obesity among students reach to 11%
Priorities of cancer prevention and control

- Tobacco control
- Balanced dietary, physical exercise and body-weight control.
- Alcohol control
- Reduce intake salt and preserved foods
Priorities of cancer prevention and control (Cont.)

- Since 1992, EPI has included HB vaccine among infants in China.
- The coverage of HBV of infants is over to 99.8% in Shanghai.
- Encourage adults accept HBV immunization.
- Hygiene habit in daily life
- Safety sexual behavior to protect HPV infection.
Priorities of cancer prevention and control (Cont.)

- Environmental protection
- Vehicle pollution control
- Industrial pollution control
- Food hygiene and safety
- Drinking water quality improving
Priorities of cancer prevention and control (Cont.)

- Early detection
- Knowledge and recognition
- Cost–benefit and effective screening method improving

<table>
<thead>
<tr>
<th>Cancer</th>
<th>strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>BSE mammogram</td>
</tr>
<tr>
<td>Cervical</td>
<td>Pap smear</td>
</tr>
<tr>
<td>Colon and rectum</td>
<td>Fecal occult blood test, flexible sigmoidoscopy, Colonoscopy</td>
</tr>
<tr>
<td>Stomach</td>
<td>Endoscopy</td>
</tr>
<tr>
<td>Liver</td>
<td>Liver function, alpha–fetoprotein (AFP) ultrasonography</td>
</tr>
</tbody>
</table>
3-Level Network for Disease Prevention and Control in Shanghai

- Municipal Government
- District Government
- Community Administration
- Municipal Health Bureau
- District Health Bureau
- Community Health Service Center
- SCDC
- District CDCs

- Administrative relationship
- Professional supervision relationship

Community, School, Hospital, Company
Surveillance Network for Infectious Disease

SCDC

District & county CDCs

Hospitals
Surveillance Sites

Passive Surveillance System  Active Surveillance System
Challenge and Opportunity

- Shanghai long term strategy of prevention and control of non-communicable diseases
- Preventive network of cancer prevention
  - Health education
  - Tobacco use and other risk factor control
- Cancer surveillance and registry
- Early detection
- QOL of survival cases and palliative care
- Multi-section cooperation and whole society participation
谢谢！