



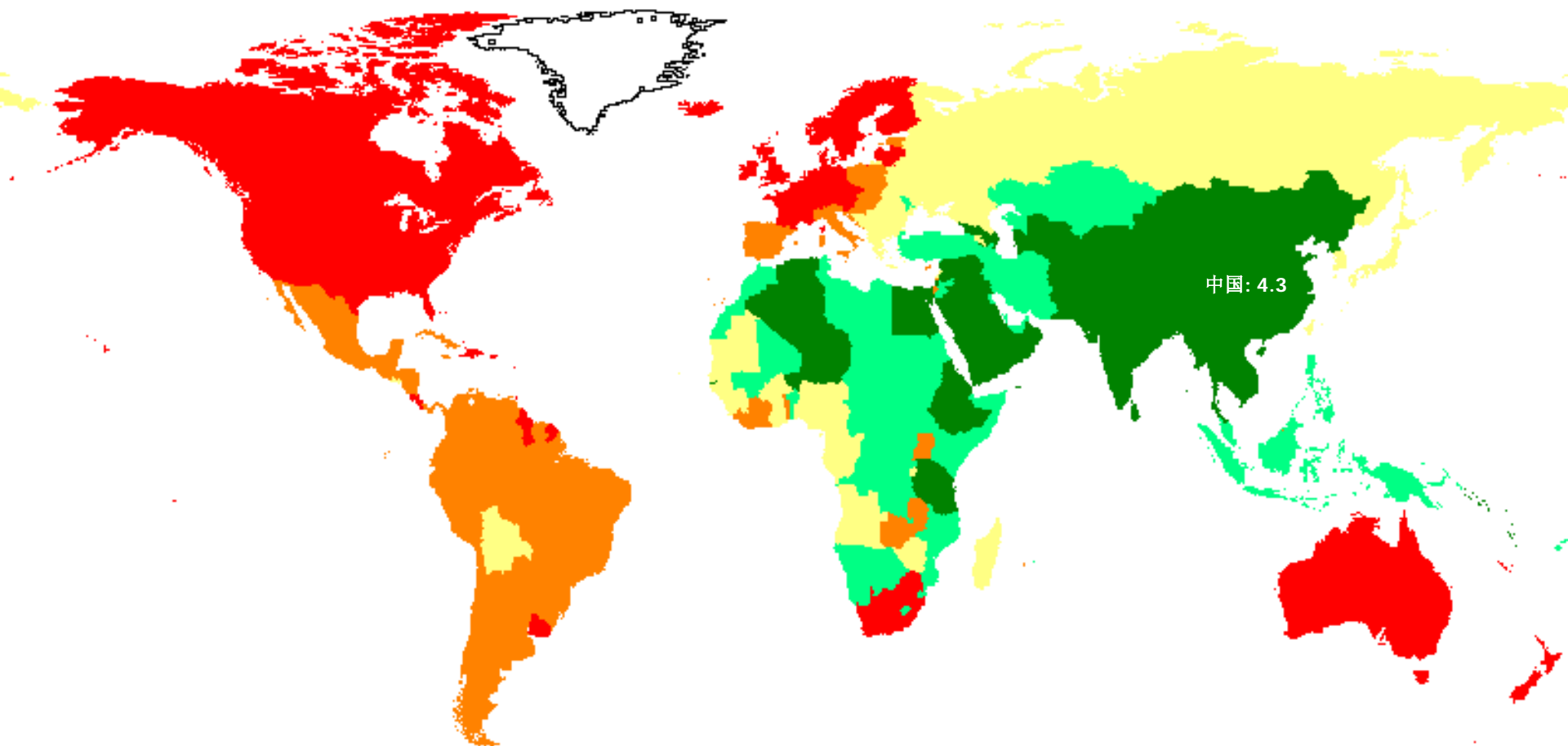
Prostate Cancer in China

Ming Li

Beijing Cancer Hospital, Peking University

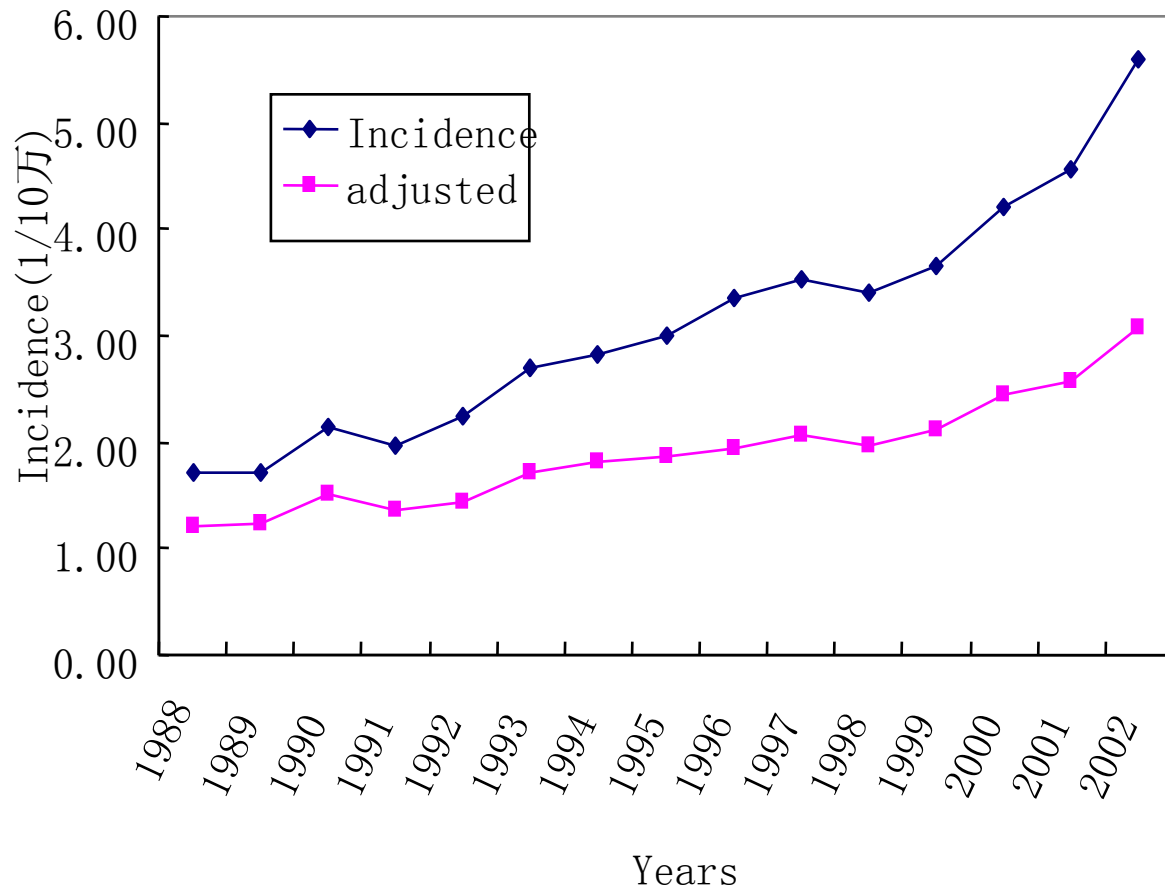
Estimated age-standardised incidence rate per 100,000

Prostate, all ages



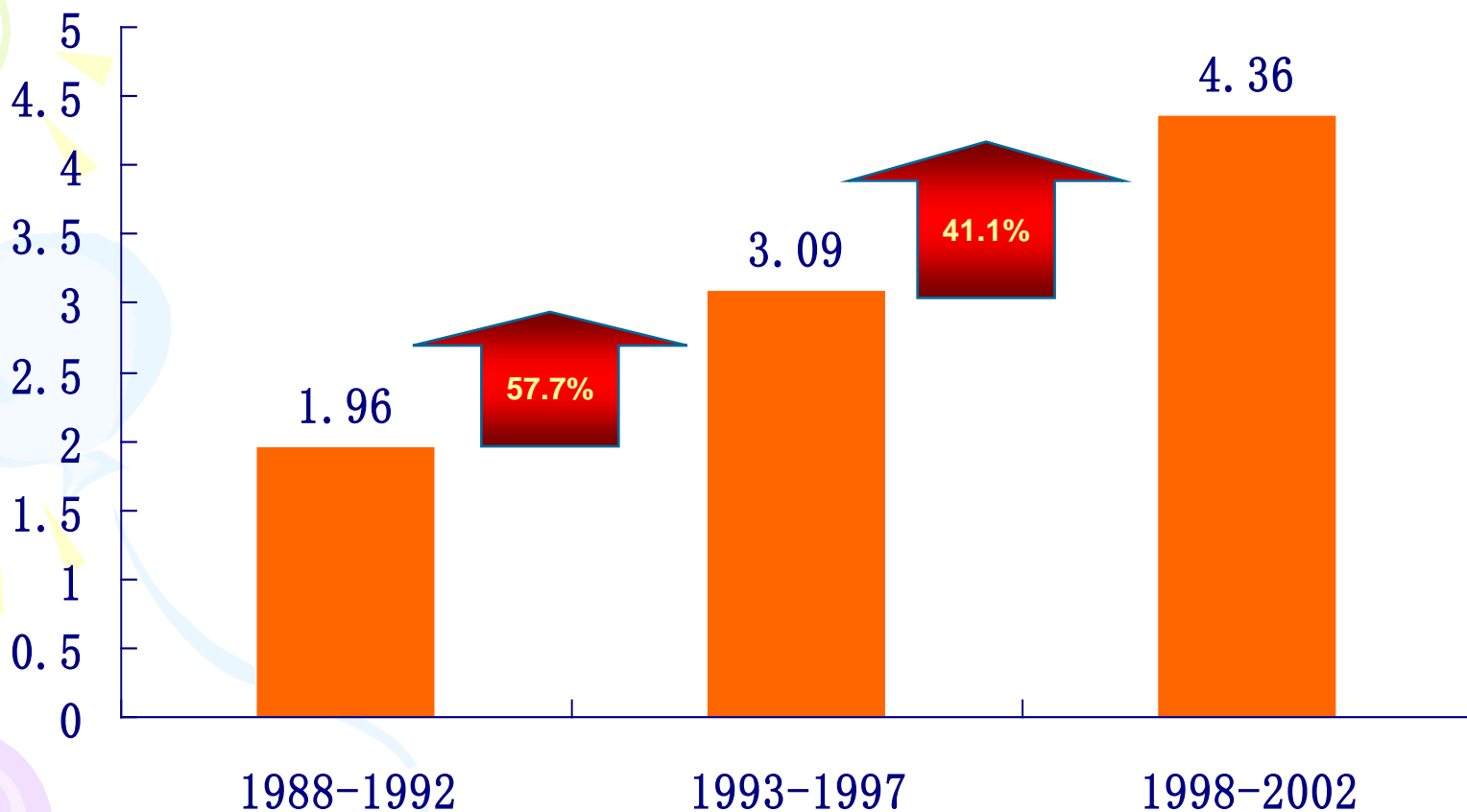
< 8.8 **< 17.6** **< 27.3** **< 58.8** **< 173.7**

Prostate Cancer Incidence in China



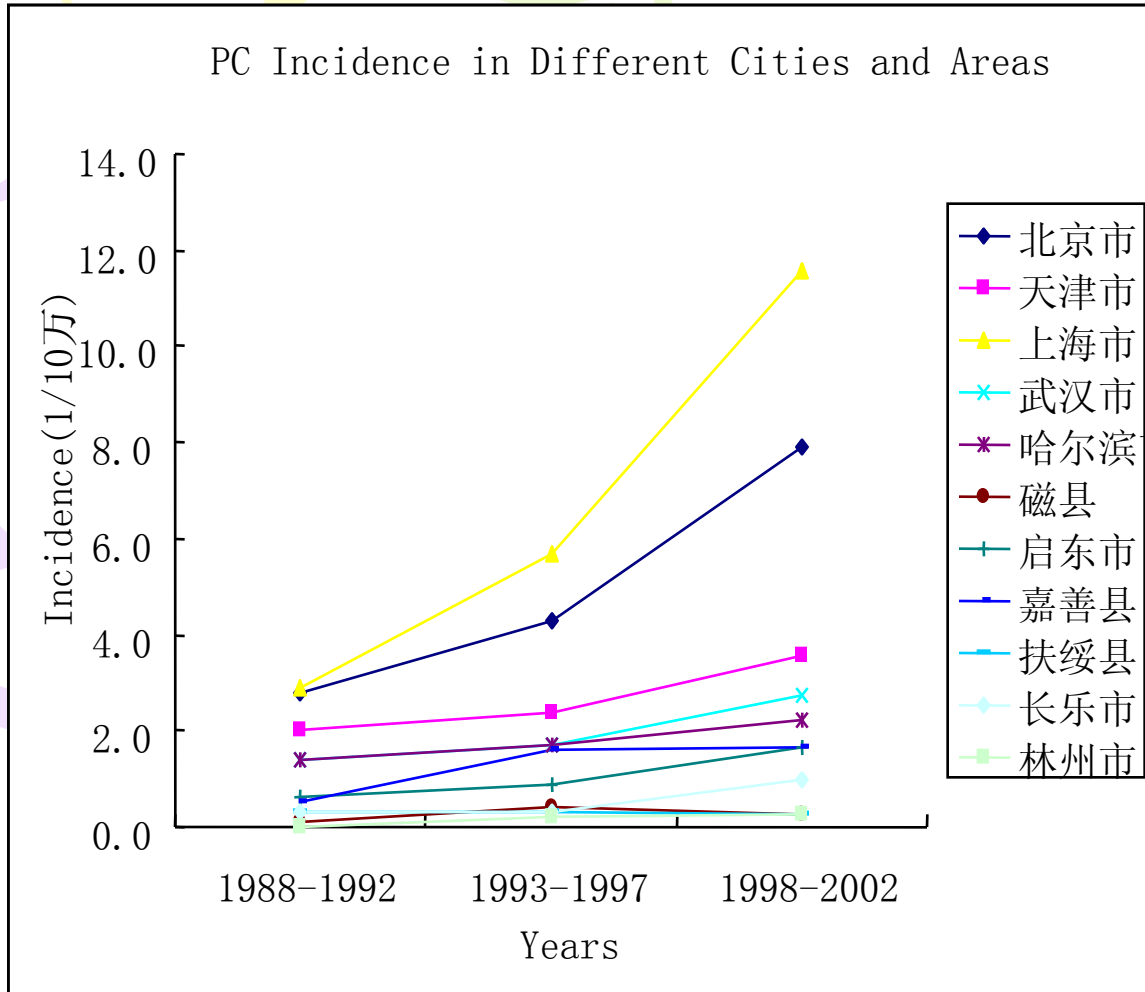
中国前列腺癌的发病趋势

(per 100,000)



中国前列腺癌发病率逐年上升

PC incidence in different areas of China in three time periods



2008

Shanghai 21/100,000

Beijing 14/100,000

Prostate Cancer Incidence in Different areas (data before 2002)



启东(Qidong)
1.09



嘉善(Jiashan)
1.90



上海(Shanghai)
2.97



北京(Beijing)
2.88



香港(Hong Kong)
8.64

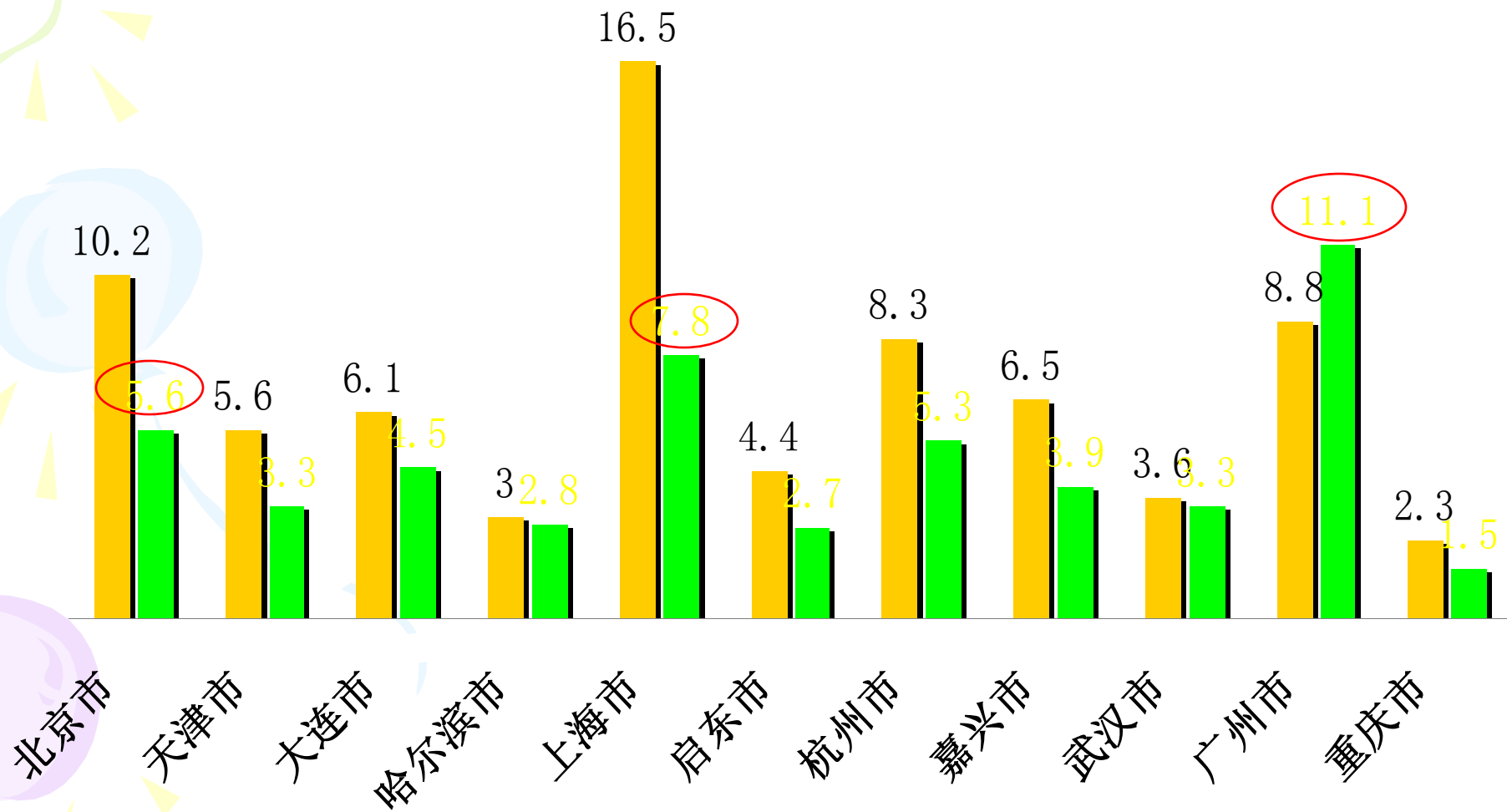


台湾(Taiwan)
11.89

2003年全国各大城市的前列腺癌发病率

一线城市发病率较高

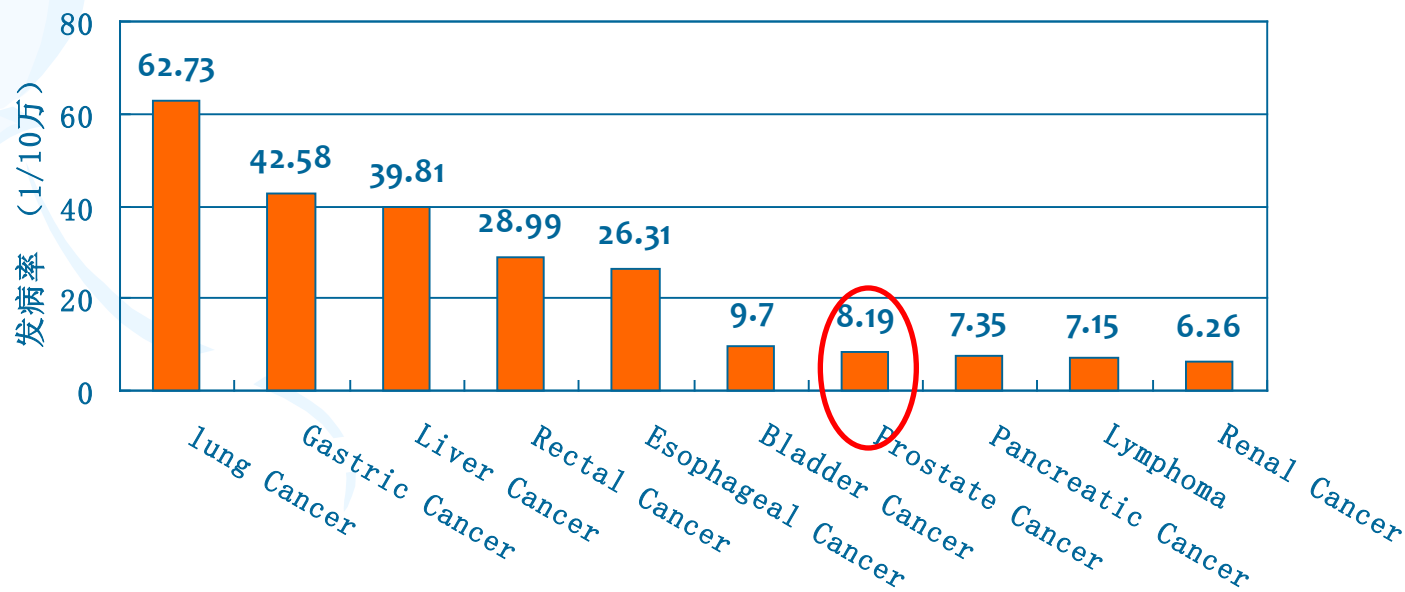
■ 发病率 ■ 标准化率



中国前列腺癌的发病率数据 (全国肿瘤登记, 2005年)

- 全国肿瘤登记地区2005年前列腺癌发病率为8.19/10万, 中国标准化率为3.90/10万。居男性所有恶性肿瘤第七位。

全国肿瘤登记地区男性前10位恶性肿瘤发病率



上海2005年肿瘤统计资料

肺、支气管

21%

胃

14%

肝

10%

结肠

8%

前列腺

5%

直肠

5%

膀胱

4%

胰腺

4%

食道

4%

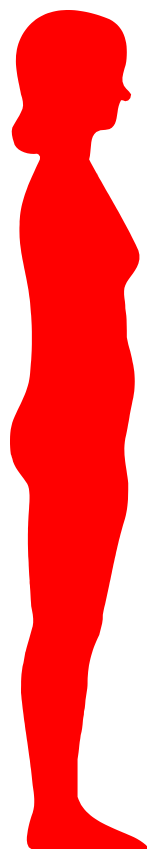
肾

3%

男性
11,195



女性
9,554



20%

乳腺

11%

肺、支气管

9%

结肠

9%

胃

5%

直肠

5%

肝

4%

卵巢

3%

中枢神经系统

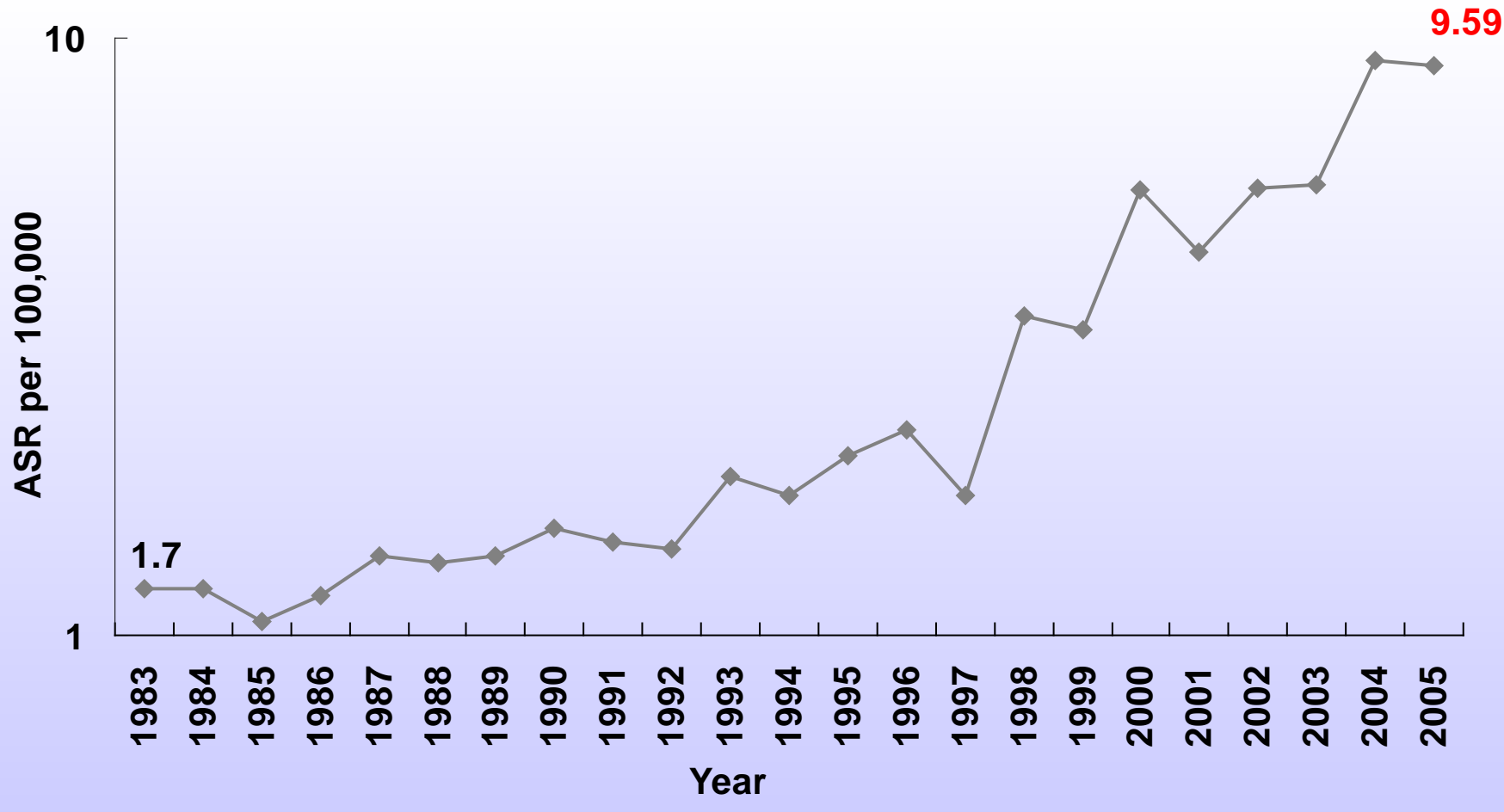
3%

子宫体

3%

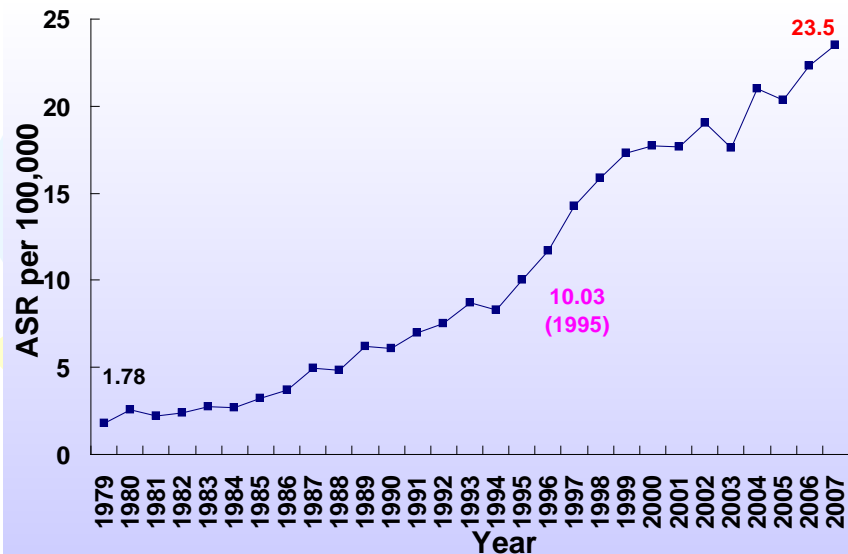
胰腺

Prostate Cancer Incidence (age-adjusted) in Shanghai



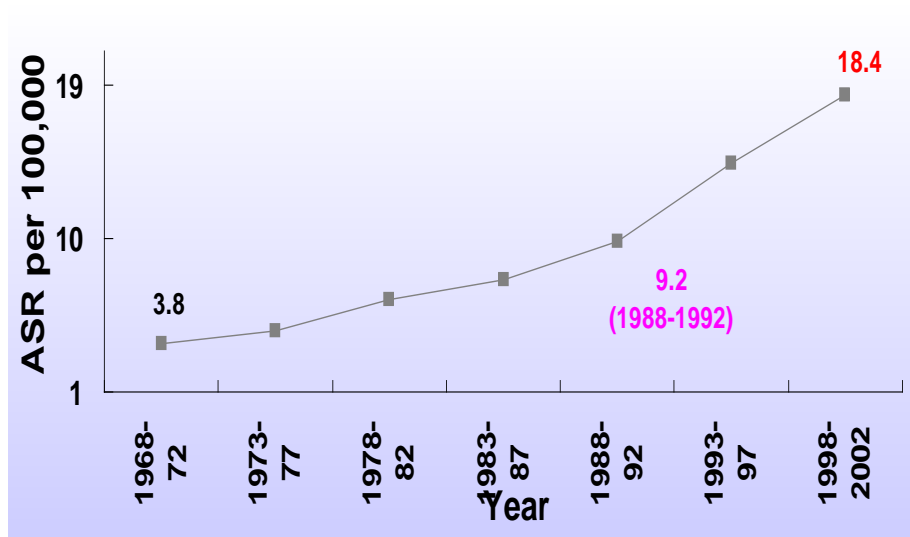
PC Incidence in Taiwan

(<http://crs.cph.ntu.edu.tw/>, 2010-11-11)



PC Incidence in Singapore

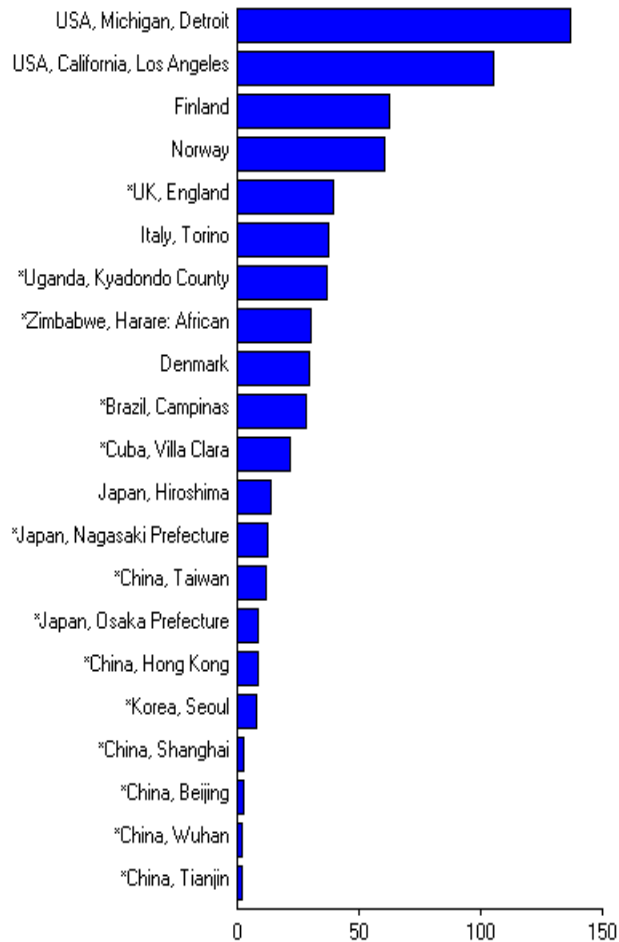
(<http://www.hpb.gov.sg/>, 2011-11-11)



PC Incidence in Different Countries and Areas

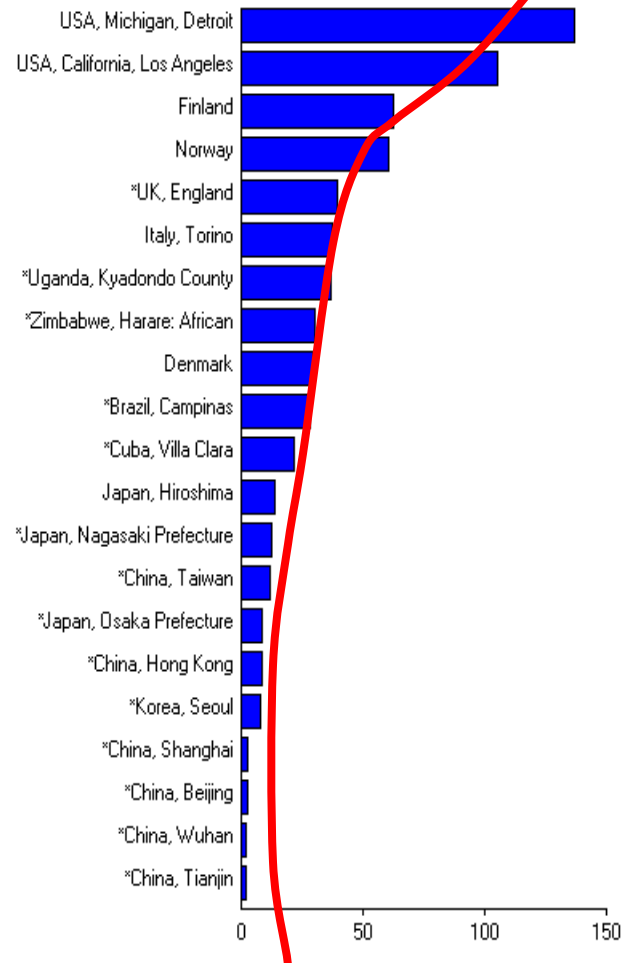
1993-1997

Prostate: ASR (World) (per 100,000) (All ages)



2000-2010

Prostate: ASR (World) (per 100,000) (All ages)



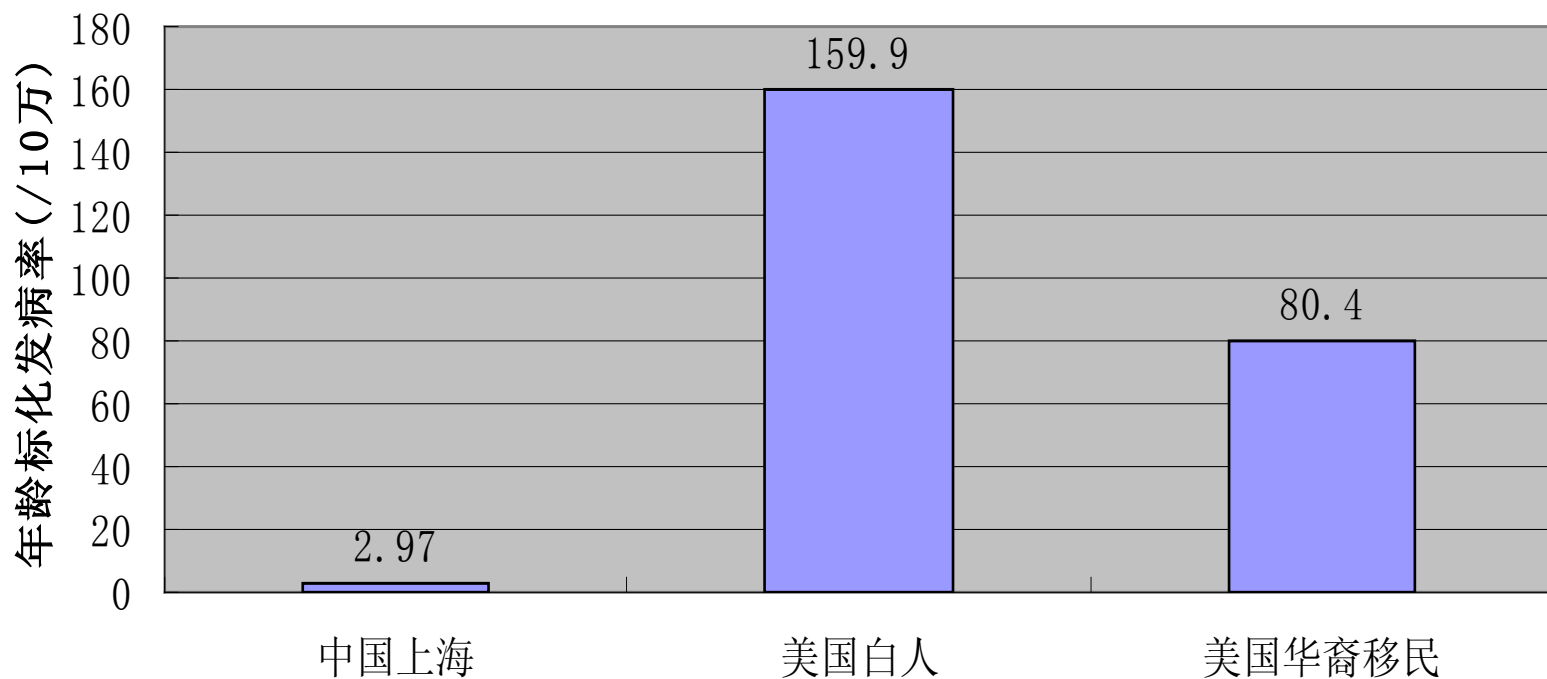


Reasons of PC Incidence Increased

- The average life span increases to
>70 yrs for male
>74 yrs for female.
- The diagnostic technology improved
PSA, Biopsy technique improved
- Life style, Westernized food.

Westernized Life Style and Prostate Cancer

2000-2002前列腺癌年龄标准发病率比较



Shanghai

American White

American Chinese



Typical Chinese Diet

- Low animal meat, Particular red meat
- Low fat, particular meat origin
- High soy products
- High vegetables
- High carbohydrate
- High fiber
- Tea as the most common drink

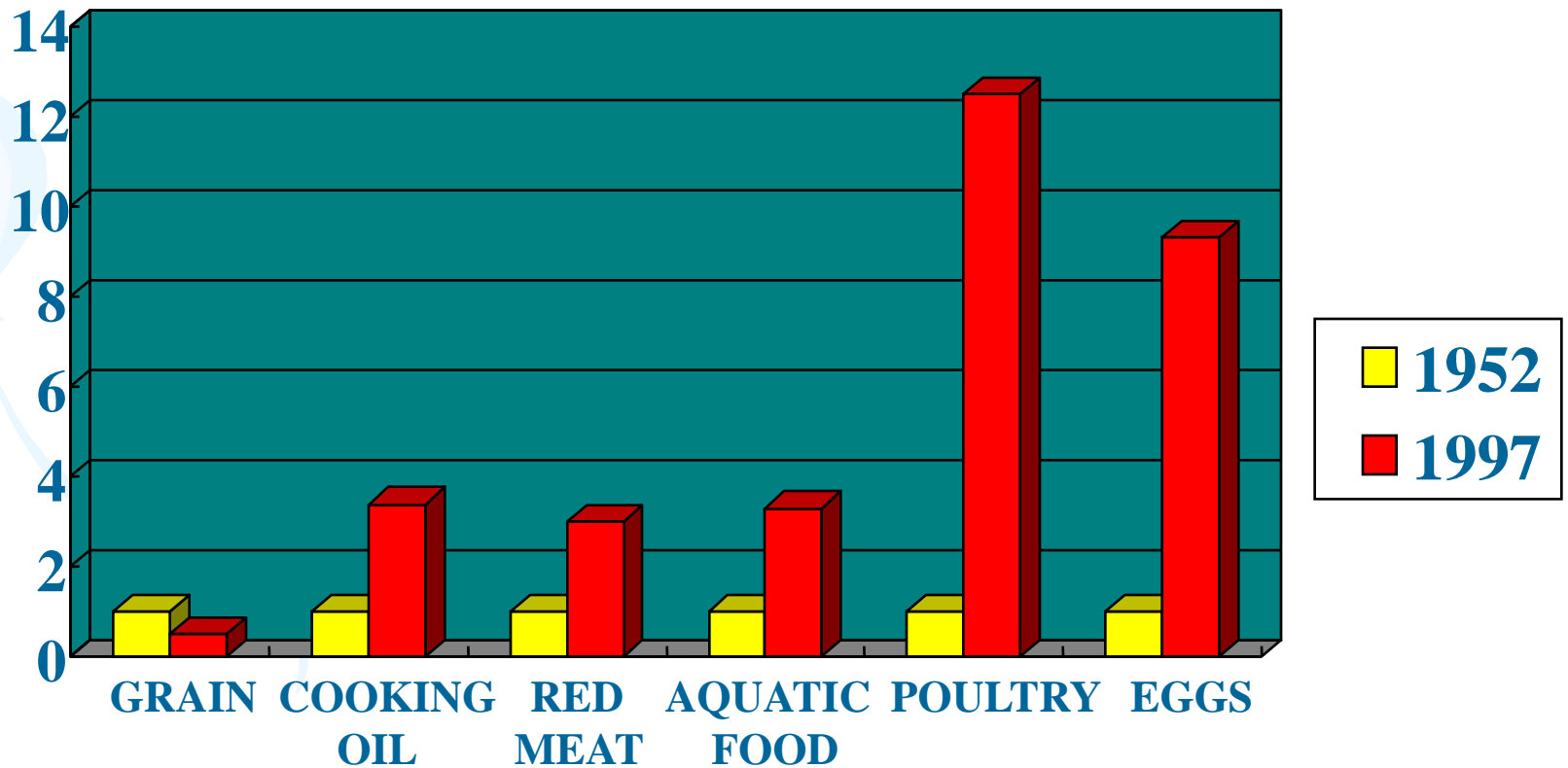


PC and Diet

- **Strong correlation between fat consumption and morbidity and mortality of PC.**
- **American, 30%-40% of calories from fat. Meats are main sources of dietary fat.**
- **Chinese, only 11.5% of calories from fat 5.3% of dietary fat from meats.**

More and more meat and fat consumption in China

Changes of Food Consumption in China (1952 v 1997)



Three balloons in green, blue, and purple are positioned on the left side of the slide. Each balloon has a string and several yellow triangular streamers attached to it. The balloons are partially cut off by the left edge of the frame.

PC Diagnosis in China

PSA value and risk of CaP

Data from EAU

PSA ng/mL	PPV for cancer
0-1	2.8-5%
1-2.5	10.5-14%
2.5-4	22-30%
4-10	41%
> 10	69%

Data from China

<4ng/ml Positive DRE	18.1%
4-10ng/ml f/tPSA > 0.16	11.6%
4-10ng/ml f/tPSA < 0.16	17.4%
10.1-20ng/ml	26.2%
>20ng/ml	61.7%

Guidelines on Prostate Cancer

G. Aus, C.C. Abbou, M. Bolla, A. Heidenreich, H. van Poppel,
H-P. Schmid, J.M. Wolff, F. Zattoni

Chinese Guideline:
Biopsy: PSA > 10ng/ml

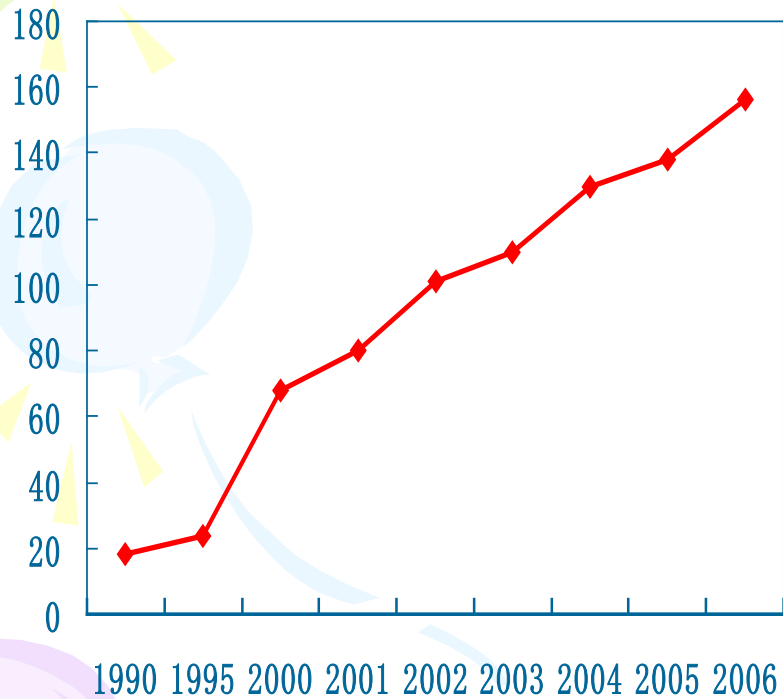


PC stage changes

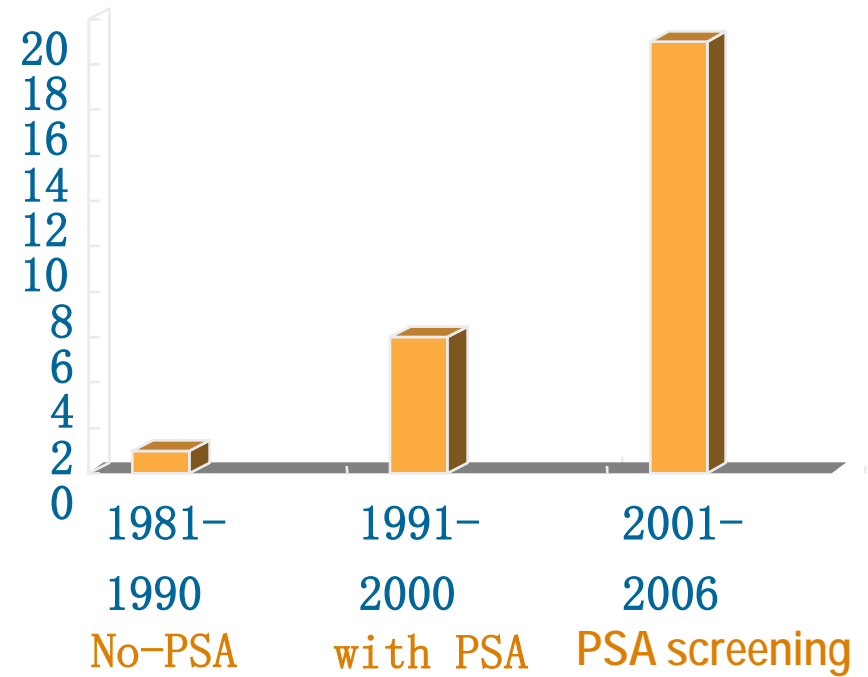
More and more early stage PC have been detected

PC in a single institute

New cases



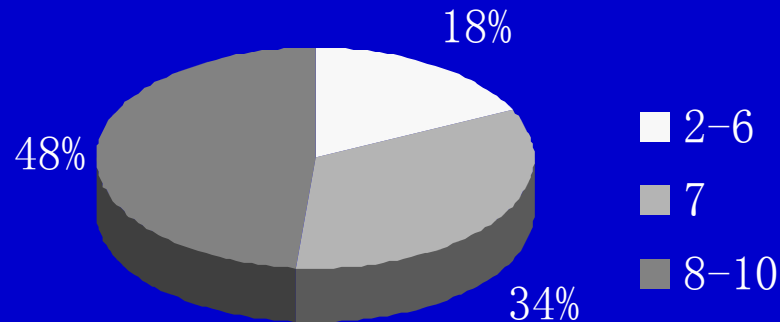
Average number of RP per year



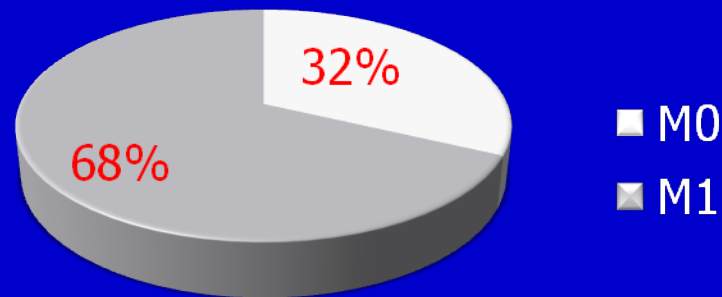
Gleason score and Staging

Data from 3 Cancer Hospitals
(Beijing, Shanghai, Guangzhou)

- Gleason评分 (325例)



- 68%的患者为M1



CUA Guideline for PC

Published in 2006
updated in 2007, 2009
Guideline Training in
All over China





CUA Guideline for PC

PC screening in China

Impossible performance in whole China

Recommendation:

PSA test and DRE for those who are >50 years old and see doctors for LUTS or other urinary symptoms.

“Clinical Screening”



CUA Guideline for PC

Biopsy Indications:

- Positive DRE
- Positive Ultrasound or MRI
- PSA > 10 ng/ml
- PSA 4~10 ng/ml
with f/tPSA < 1.6 or PSAD > 0.15

A decorative graphic on the left side of the slide features three balloons: a green one at the top, a light blue one in the middle, and a purple one at the bottom. Each balloon is attached to a string and has several small yellow triangular shapes radiating from it, suggesting light or movement. The balloons are positioned vertically along the left edge of the slide.

PC treatment in China



Changes of PC treatment options

1980s:

<20% PC received RP (localized)

60-70% PC with advanced or metastasis diseases

2000s:

20-40% PC undergo RP (localized)

Around 50% PC with advanced or metastasis diseases

More than 50% receive hormonal therapy

Percentage of early PC is still low.

**PSA test only for those who are older than 50 years
and see doctors for LUTS or other urinary symptoms.**



PC treatment in China

Hormonal Therapy (>50%):

In rural area: >80% surgical castration

In urban area: >80% medical castration

Radical Prostatectomy (20~40%):

up to 50% LRP

up to 5% RLRP

Radiation: <5%

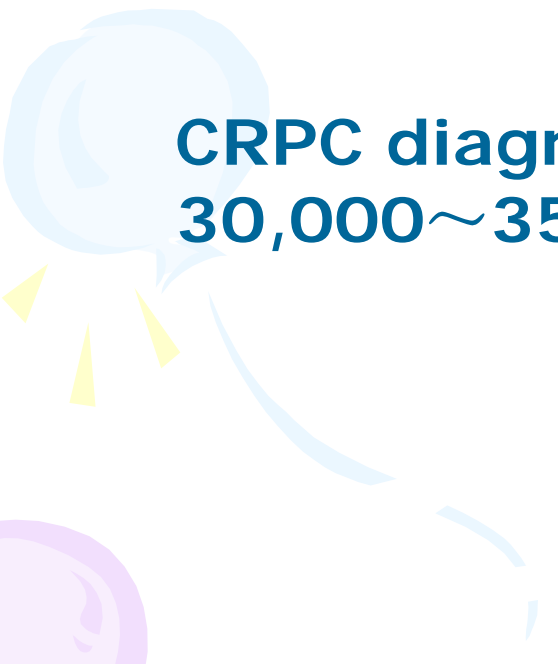
Brachy therapy 5~10%



CHINA

PC incidence: 5/100,000 Population: 1.3 B

PC new cases: 65,000/year



CRPC diagnosed:
30,000~35,000/year



CRPC/HRPC treatment in China

**Second line hormone therapy as first consideration
Chemotherapy for HRPC**

CUA Guideline:

**Docetaxel based chemotherapy is first choice.
But before 2010 there is no indication for PC in China
Estramustine and mitoxatrone were mostly used**

**Second line Chemo agent:
Cabazitaxel is not available**

Wellcome to Beijing Cancer Hospital

