# Animal Welfare, Public Health, and the Future of China's Intensive Meat Production

Peter J. Li, Ph.D.

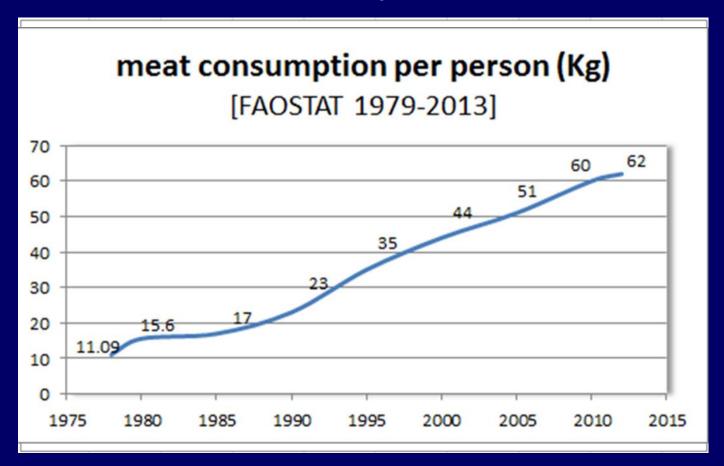
Associate Professor of East Asian Politics
University of Houston-Downtown

lip@uhd.edu

China Policy Specialist Humane Society International

# **Consumption in China**

#### Growth of Meat Consumption



# Animal Welfare Cost of Meat Consumption Increase



## Consequences of Intensive Production

- Animal heath threat
  - Over 200 diseases
    - Simultaneous outbreak of several diseases
    - repeated infections
  - Drug resistance
    - Disease caused by suppressed immune system, an obstacle to disease control and prevention
  - Higher frequency of disease outbreaks
    - Pig foot-mouth disease outbreaks
      - Now: once every 2 to 3 years
      - Before: once every 5 to 10 years

Source: Zhongliang Xiong and Diping Xu, "The current state of China's major animal epidemics and their control and prevention strategies" (woguo zhongda dongwu yibing liuxing xianzhuang jiqi fangkong celue), Hebei Journal of Animal and Veterinary Sciences, No. 12, 2007, pp. 22-24.

# Consequences of Intensive Production

中央政府门户网站 www.gov.cn 2012年05月25日 19时50分 来源: 国务院办公厅

【字体: 大中小】 打印本页 关闭窗口

#### 国务院办公厅关于印发国家中长期动物疫病 防治规划(2012—2020年)的通知

国办发〔2012〕31号

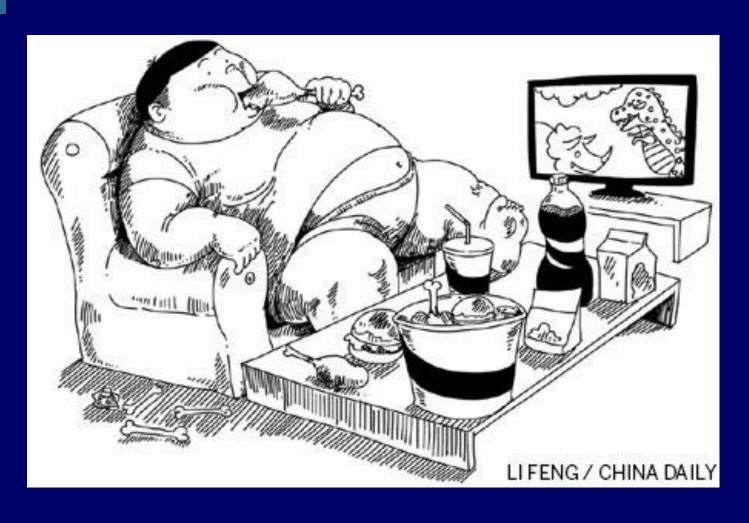
各省、自治区、直辖市人民政府, 国务院各部委、各直属机构:

《国家中长期动物疫病防治规划(2012-2020年)》已经国务院同意,现印发给你们,请认真贯彻执行。

国务院办公厅 二〇一二年五月二十日

#### 一、当前中国蛋鸡产业现状及存在的主要问题

# Human Welfare Impact



# **Humane Welfare Impact**

#### China Youth Daily

- **■**7% overweight 1982
- **=**15% 2006
- **■1 out of 4 adults, 2011**
- ■Obese children up by 28 times between 1997-2011
- ■Overweight population: 325 million, 2011

(Source: http://finance.chinanews.com/jk/2012/02-02/3637807.shtml)

#### The People's Daily

- ■120 million obese under 18
- ■12% obese and 30% overweight of those over 18
- Weight gain faster in 10 years than West in 30 years

(Source: Jin Haxing, "China's obese population on the rise" *China Daily*, 2-22-2013http://www.chinadaily.com.cn/china/2013-02/22/content 16249767.htm)



#### **Diabetes in Chinese Adults**

According to a recent *JAMA* study estimate (2013:310[9]):948-959

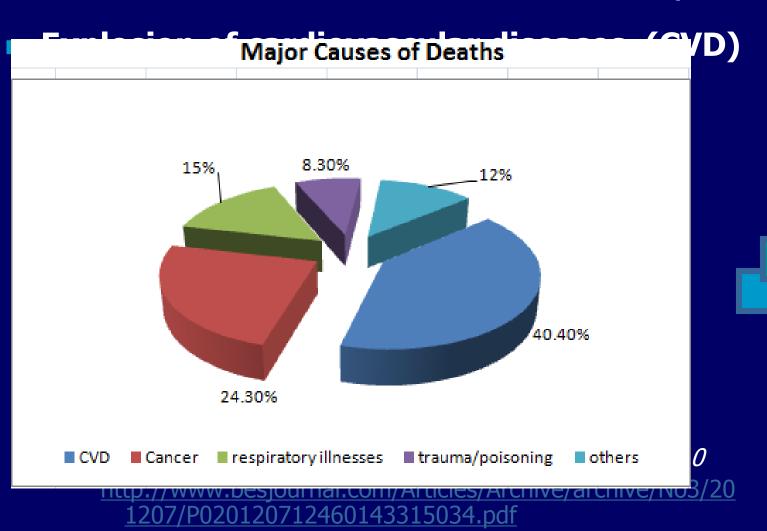
- ■113.9 million Chinese adults having diabetes
- **■493.4** million with pre-diabetes

\*11.6% Chinese adults v. 11.3% of Americans with diabetes

\* In 1980, less than 1% Chinese with diabetes

(Source: The Associated Press, "China Now Leads the World in Diabetes Cases" *The New York Times,* March 26, 2010 via <a href="http://www.nytimes.com/2010/03/26/world/asia/26iht-diabetes.html?\_r=0">http://www.nytimes.com/2010/03/26/world/asia/26iht-diabetes.html?\_r=0</a>)

# **Humane Welfare Impact**



# Humane Welfare Impact

- Cancer
  - An 80% increase of death from cancer (1980-2010)
  - some 1.8 million cancer-caused deaths each year
  - 2.6 million new cancer patients each year
  - number of cancer patients on the rise
    - Chen Zhu, Minister of Public Health of China (http://news.sohu.com/20100826/n274479646.shtml)

#### Report on Cardiovascular Diseases in China 2010

Linking meat consumption to CVDs (Mongolians and Tibetans)

# Regime Security Impact

- Capacity of health care provision
  - Shortage of hospital beds
  - 17% of public health spending on diabetes
  - Rising expenses of hospitalization
  - Medical coverage yet to be developed
- Public health, a new threat to regime stability!

# **Looking Ahead**

Will intensive production continue?

#### Urban Rural Grain and Meat Consumption Comparison (1985-2011) [kilograms]

<u> </u>		$\overline{}$								
	Urban				Rural					
	Grain	Pork	Beef/mutton	Poultry	Grain	Pork	Beef/Mutton	Poultry		
1985	134.76	16.68	2.04	3.24	257.45	10.32	0.65	1.03		
1990	140.72	18.46	3.28	3.42	262.08	10.54	0.8	1.25		
1995	97	17.24	2.44	3.97	256.07	10.58	0.71	1.83		
2000	82.31	16.73	3.33	5.44	208.85	13.28	1.13	2.81		
2005	76.98	20.15	3.71	8.97	208.62	15.62	1.47	3.67		
2010	81.53	20.73	3.78	10.21	181.44	14.4	1.43	4.17		
2011	80.71	20.63	3.95	10.59	170.74	14.42	1.9	4.54		

Compiled by Chen Qiong and Wang Jimin from China Statistics Yearbook and China Rural Statistics Yearbook. The data were used in their article "The current state and future direction of China's meat consumption" published in Chinese Food and Nutrition, No. 6, 2013, accessible via http://e-nw.shac.gov.cn/wmfw/scfx/hqfx/201308/t20130805\_1348931.htm, downloaded January 18,2014.

# **Looking Ahead**

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Chicken Consumption Per Person in China and the United States, 1960-2012												
		Kilograms										
Year	China	United States										
1980		21.3										
1987	1.4	27.4										
1990	2.1	30.6										
1995	6.3	35.5										
2000	7.4	40.6										
2005	7.7	45.3										
2010	9.3	43.4										
2011	9.7	43.6										
Notes: "n.a." signifies data not available. 2012 is a projection.												
4 1.31	2 2	- 1-										

1 kilogram = 2.2 pounds

Source: Compiled by Earth Policy Institute from U.S. Department of Agriculture, *Production, Supply and Distribution*, electronic database, at www.fas.usda.gov/psdonline, updated 10 April 2012; and United Nations Population Division, *World Population Prospects: The 2010 Revision*, CD-ROM Edition (New York: April 2011).

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# Looking ahead

#### Epidemic outbreak and consumer response

#### "官员带头吃鸡"是一种必要的作秀

2013年04月19日 10:10 来源:法制日报 💝参与互动(3)















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# Looking Ahead

#### Food safety awareness

- New consumption characteristics
  - From price to product safety
- Revival of vegetarianism
  - 7 million vegetarians