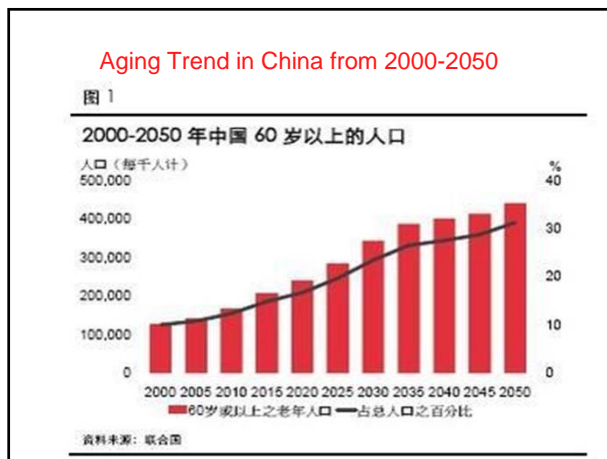
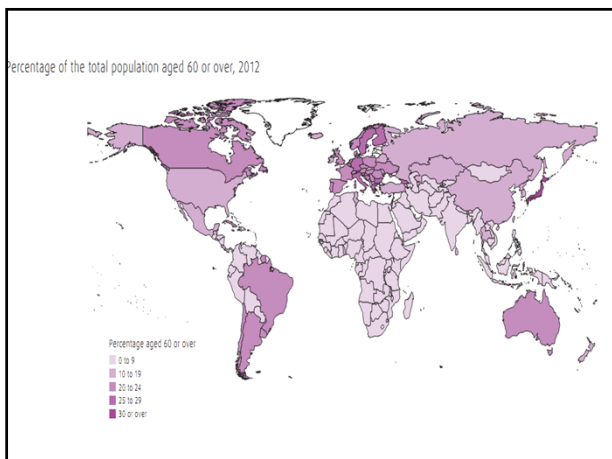
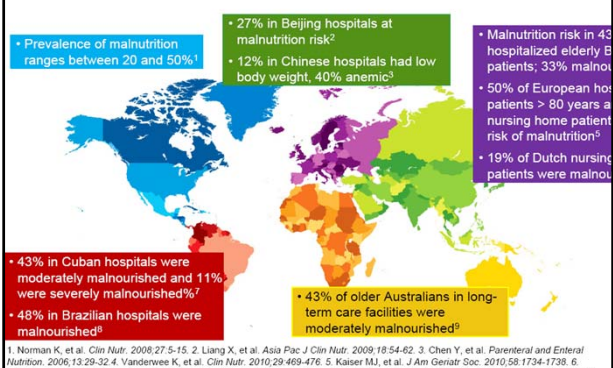


**Importance of Clinical Nutrition
- Good Nutrition for Elderly**

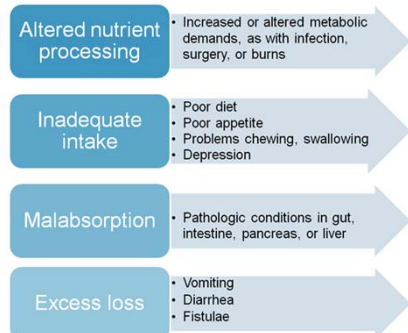
Jianqin Sun
Prof & Director of Clinical Nutrition Center
Huadong Hospital of Fudan University, Shanghai China

Food4Growth, CPH 2015,8,24-28

**Malnutrition in hospitals and long-term care:
up to 50% of patients**



Causes of malnutrition



Saunders J, Smith T. *Clinical Medicine*. 2010;10:624-627. ..

Malnutrition is under-diagnosed and under-treated

Under-diagnosed

In a Dutch study of nutrition practices, 60% of hospitalized patients were not screened for malnutrition or risk.¹

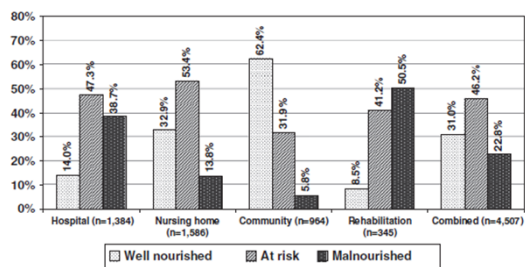
Under-treated

- >1000 patients at Uppsala University Hospital, ~65 y
- 24 h food registration
- Energy need: 30 kcal/kg/d (>70: 25 kcal/kg/d)
- Median intake 50-75 % of need
- ½ received <75% of energy need
- 20% received <50% of energy need



1. Meijers JM, et al. *Nutrition*. 2009;25:512-519. 2. Schindler K, et al. *Clinical Nutrition*. 2010;29:552-559. 3. Singer P, et al. *Curr Opin Clin Nutr Metab Care*. 2010;13:170-176.

Frequency of Malnutrition in Older Adults: A Multinational Perspective Using the Mini Nutritional Assessment

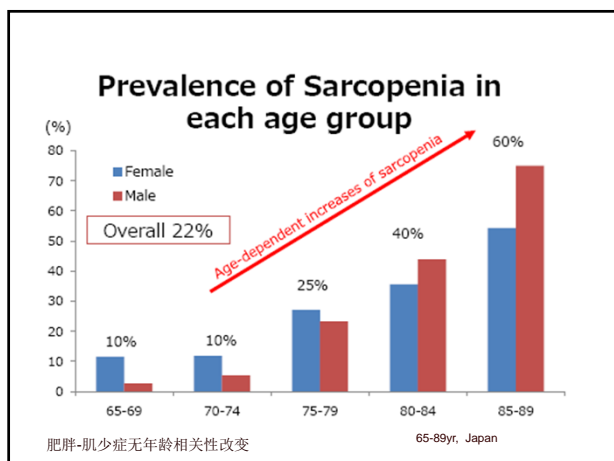
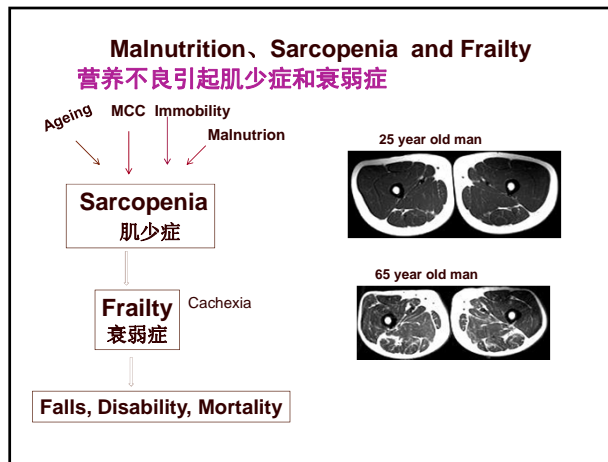
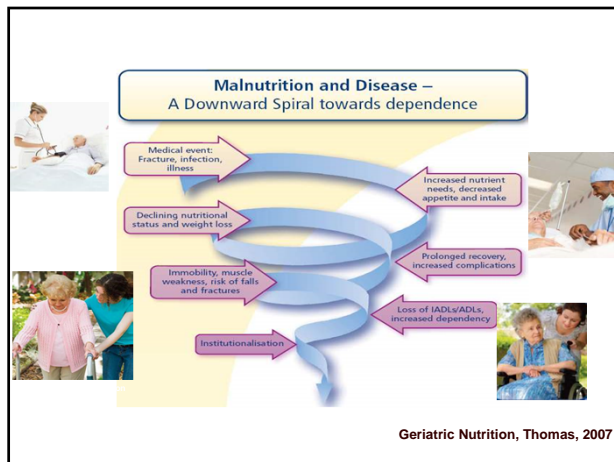


12个国家4507例平均年龄82岁，营养不良22.8%，营养不良危险 46.2%。

Malnutrition increasing with aging

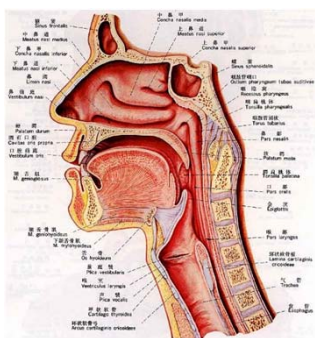
10181 elderly pt in 30 hospitals from 14 cities,

Age	NRS 2002		MNA-SF	
	Under nutrition	Nutrition risk	Under nutrition	Nutrition risk
65~	8.91	31.42	10.81	43.29
70~	9.71	50.65	14.27	49.42
80~	13.04	55.47	21.61	57.32
90~	17.53	57.08	33.05	72.10
avg	10.07	46.23	15.13	50.06



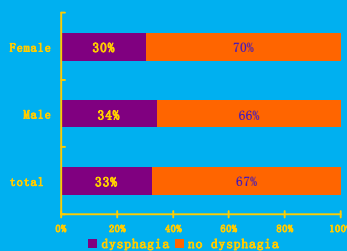
- ### Consequences of Sarcopenia
- Decreased resting energy expenditure
 - Decreased insulin sensitivity
 - Decreased muscle mass and strength
 - Increased risk of physical disability
 - Increased risk of falls and hospitalization
 - poor quality of life
 - Increased risk of mortality
- Sarcopenia: An Undiagnosed Condition in Older Adults. Current Consensus Definition: Prevalence, Etiology, and Consequences. J Am Med Dir Assoc 2011;12: 249-256

swallow problem in elderly



Dysphagia by Kubota's assessment in nursing home Shanghai

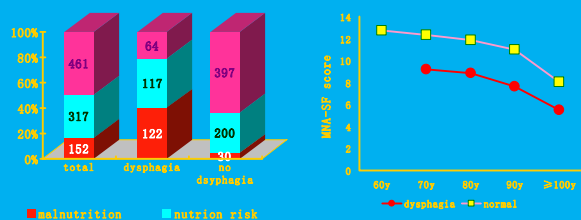
6 nursery home, 931 elderly(M:504,F: 427) Age: 60-103y(Average 83.9y)



24

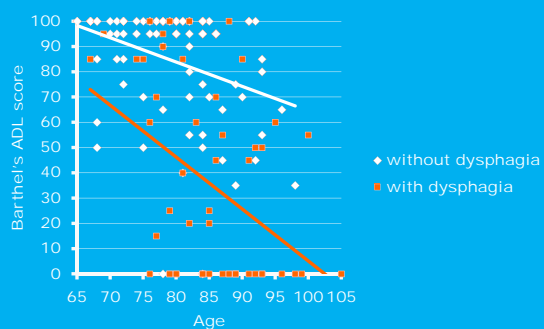
Nutritional complication (MNA-SF) of dysphagia in Shanghai nursing home

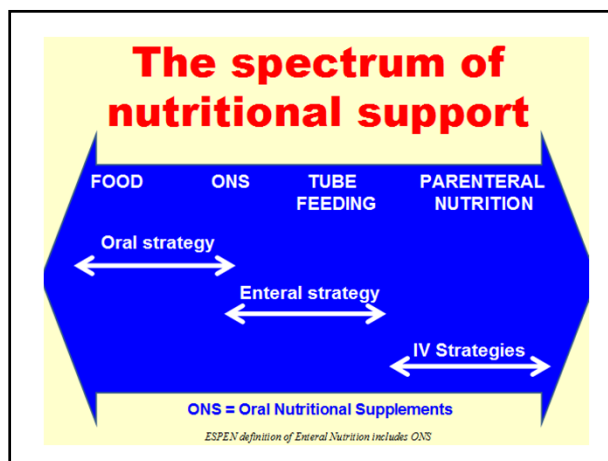
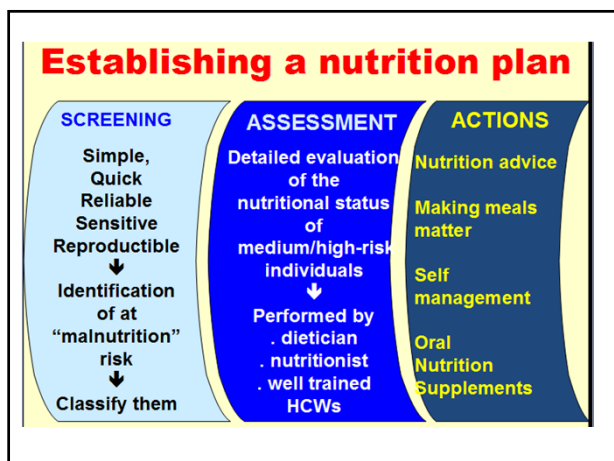
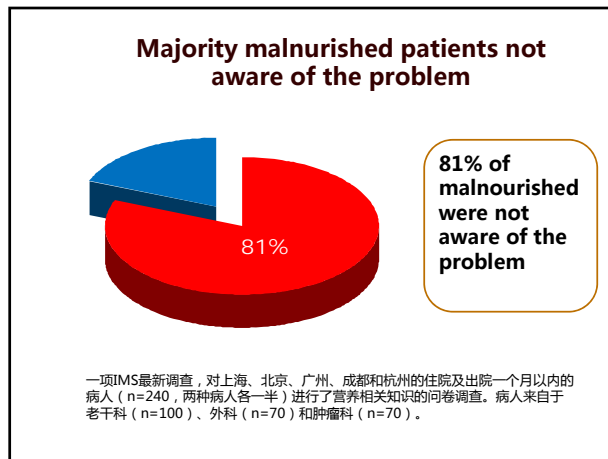
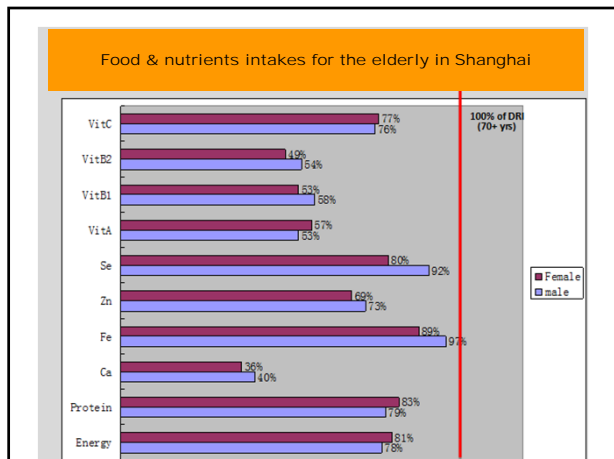
Nutrition status of the elderly (with/without dysphagia)
 Malnutrition: 16.3% vs 38.6%
 Nutrition risk: 34.1% vs 32.5%
 Well nourished 49.6% vs 28.9%



Han WJ, Sun Jq CSPEN2011, Zhengzhou China

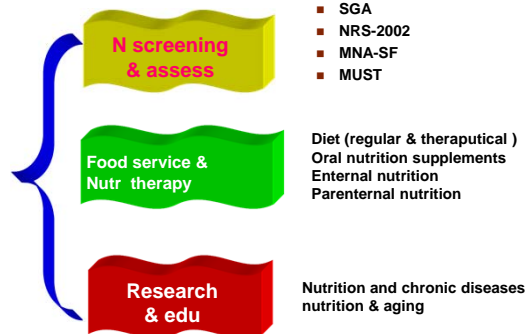
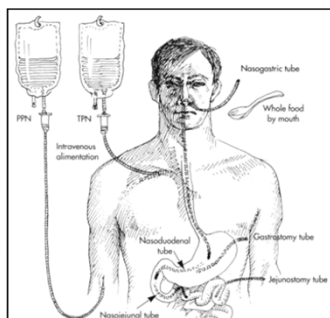
Comparison of Barthel's ADL score and dysphagia in elderly patients





Diet & nutrition support

- Oral
- Enteral/
Tube feeding
- Parenteral

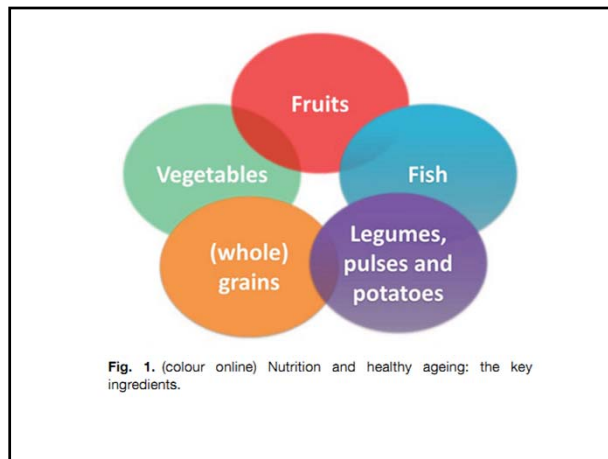


Clinical work of nutrition department in Huadong Hospital China

Nutrition Screening & assessment



Diet ordered from doctor, cook & serve, hot meal, regular diet & therapeutical diet 1:1



Gold standard of Nutritional therapy:
If the gut works, then use it!

Eat adequate food = Quality of life

Training & Research Course:
ICT Assisted Methods for Measuring Behaviour
& Architectures in Complex Foodscapes – A Global Approach
Fudan University
 Preliminary dates: (November 9-11), 2015

Welcome to Shanghai

Shanghai

population: 23 million, life expectancy: 82.51y



Thanks for your attention