

# 山东省政府-原卫生部 减盐防控高血压项目简介

## Shandong and MoH Action on Salt and Hypertension (SMASH) : Project Update

Health and Family Planning Commission  
of Shandong Province  
March, 2015



# Background

- ➡ The morbidity of hypertension in Shandong is very high. (23.44% )
- ➡ Due to geographic and food cultural influence, the intake of salt in Shandong is comparatively high. Residents in Shandong like shrimp paste ( 虾酱)、salted fish(咸鱼)、braised meat(酱肉)、pickles(腌菜) etc.
- ➡ Since 2010, Shandong government launched “healthy Shandong Action” to improve their citizens’ health conditions.
- ➡ Ministry of Health and Shandong government signed an agreement on reducing intake of salt and preventing hypertension (SMASH). This project is a pilot experiment to find methods to reduce salt intake.
- ➡ This project is also the first large-scale action led by the government to intervene the risk factors lead to chronic disease.



# Background

- On March 11<sup>th</sup>, 2011, March 11, 2011, SMASH Cooperation Agreement was signed.
- ➡ On March 15<sup>th</sup>, 2011, March 15, 2011, SMASH Action Plan issued.



# Objectives

## ➡ Overall goal

By the year of 2015, reduce the intake of salt to 10 grams per day. (from 12.5 grams)

Advocacy: leadership building; food industry and food catering

## ➡ Specific objectives

- ✿ Policy and Environment : improve policy making, create better food conditions
- ✿ Residents: Health education, improve awareness. (KABP)
- ✿ Hypertensive patients: awareness, treatment, intervention, management
- ✿ Building Monitor and evaluation system (M&E)



# General idea and strategy

- Promote organizational building, multi-sector cooperation, and encourage household, food industry and restaurants to take actions.
- Disseminate knowledge of salt intake and hypertension.
- Guide the people's behavior based on community unit.
- Place intervention
  - ✧ Household
  - ✧ schools
  - ✧ Medical institutions
  - ✧ Supermarkets
  - ✧ restaurants
- Food industry: reduce the use of salt in food production



# Baseline survey and mid-term evaluation

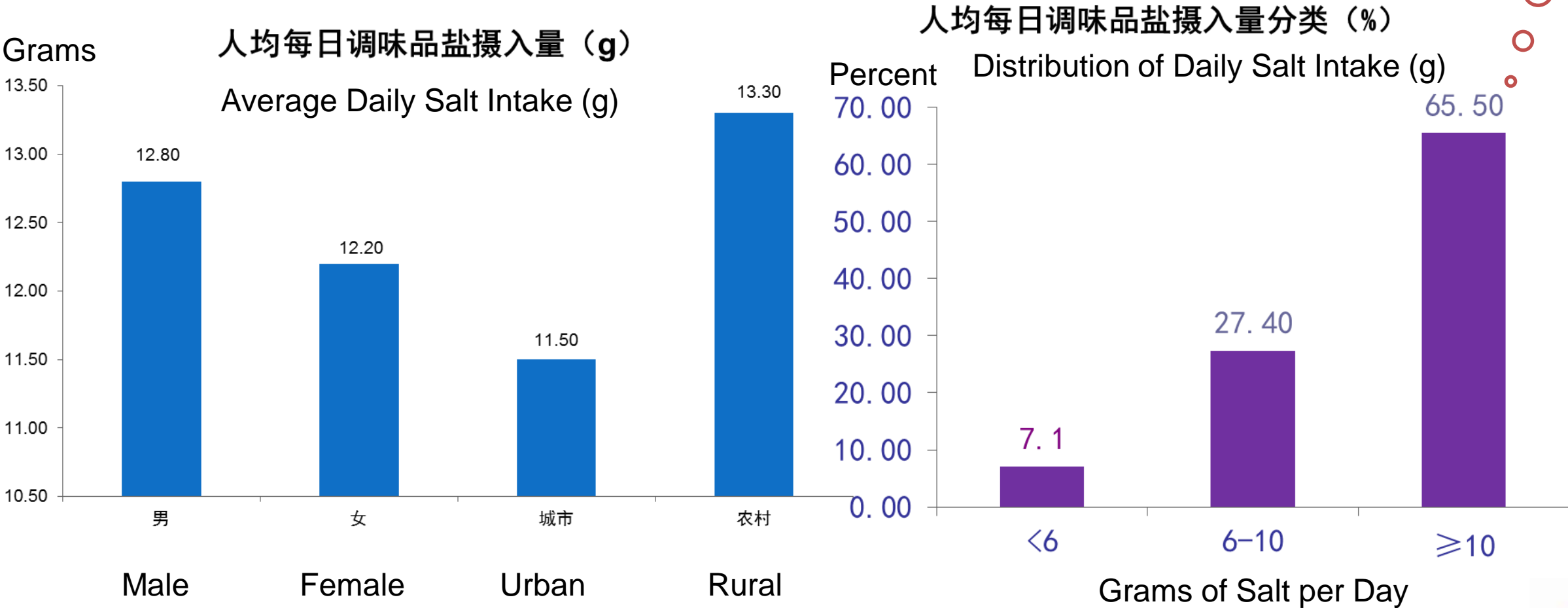
- Implement baseline survey in June, 2011
- Baseline survey
  - ✧ Sample: adults (age 18-69) 15350; students (age 6-17) 4898
  - ✧ Items: KAP test of reducing salt intake, household salt intake survey (2208), physical examination (20237), urine test (2112)
- Policy survey
  - ✧ Food industry survey (434)
  - ✧ Restaurant survey (1072)
  - ✧ Packaged food on sale (9 categories)
- Implement a mid-term evaluation in March, 2014
- mid-term evaluation
  - ✧ Sample: adults (age 18-69) 5939; students (age 12-17) 2120.
  - ✧ Items: household salt intake survey, KAP test of reducing salt intake
- Policy survey
  - ✧ Food industry survey (411)
  - ✧ Restaurants (885)



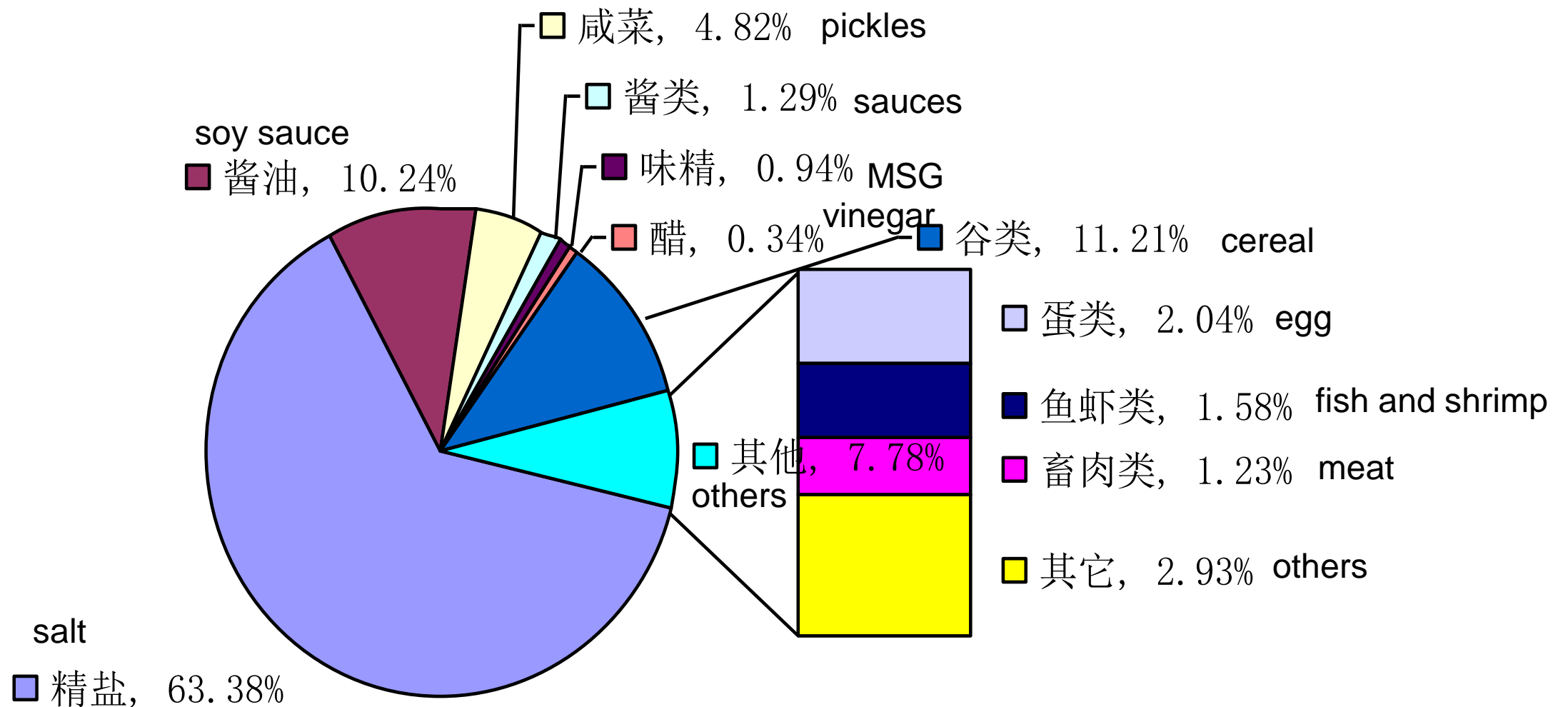
Baseline survey :

山东省居民膳食盐食用量偏高  
Salt Intake: High

目标群体  
Target  
population



# 成人钠摄入来源 Source of Sodium (adult)



调味品占膳食钠总摄入量(15.6克NaCl)的**81.0%**, 加工食品占膳食钠总摄入量的**10.0%**

**81.0%** sodium from condiments, and **10%** from processed food

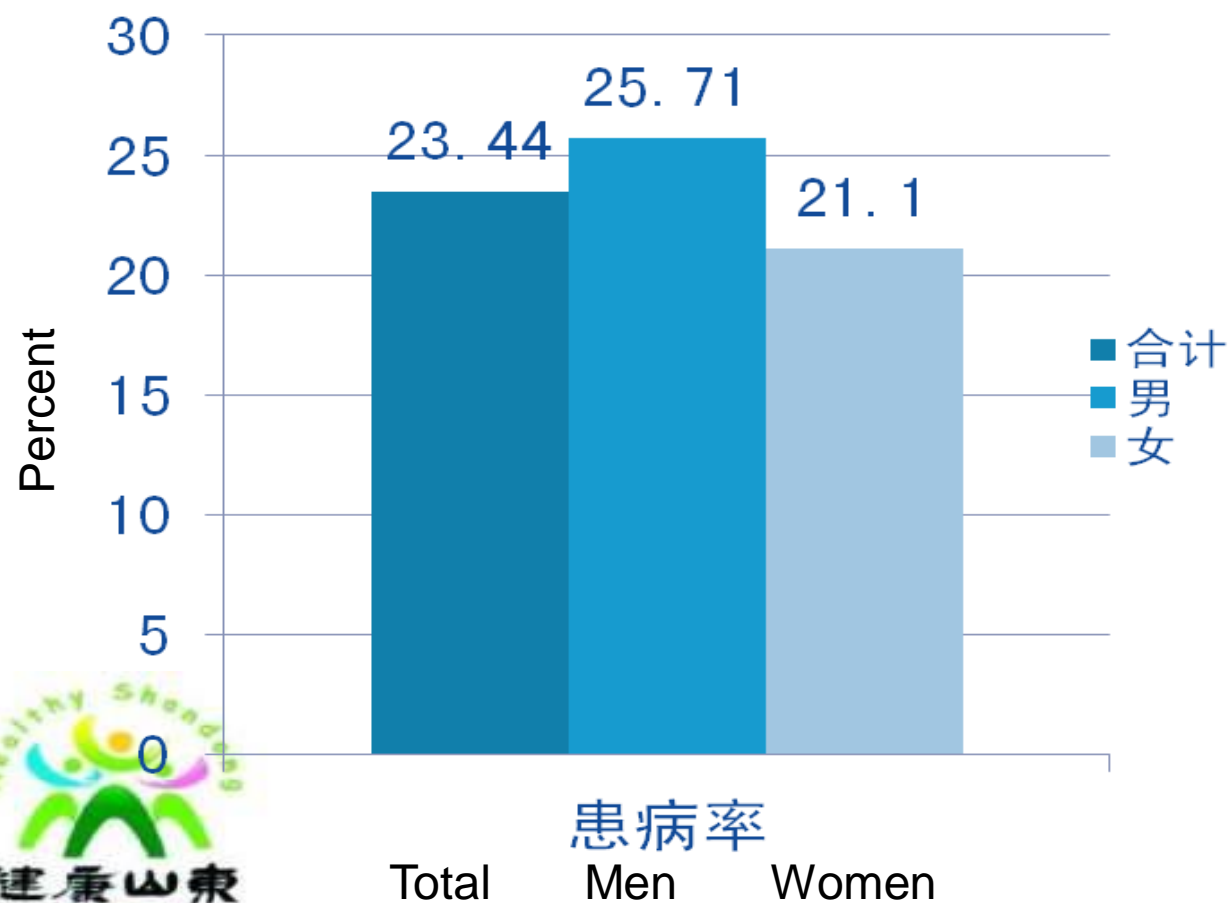


# 山东省高血压流行形势依然严峻

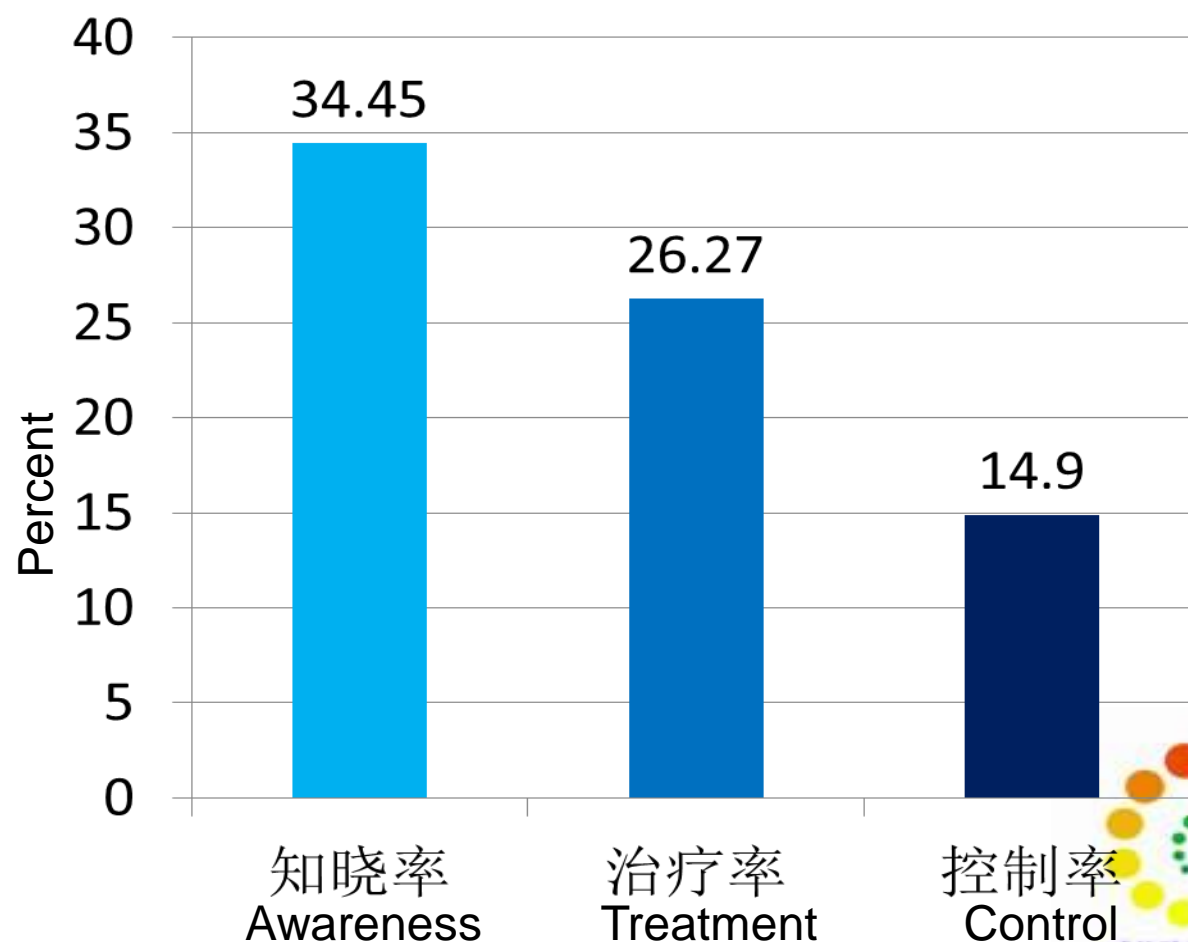
## Hypertension Prevalence, Awareness, Treatment, and Control

18-69岁成人  
Adults (18-69Y)

HP Morbidity %  
高血压患病率



Rate of HP awareness, treatment & control (%)  
高血压知晓治疗控制率 (%)



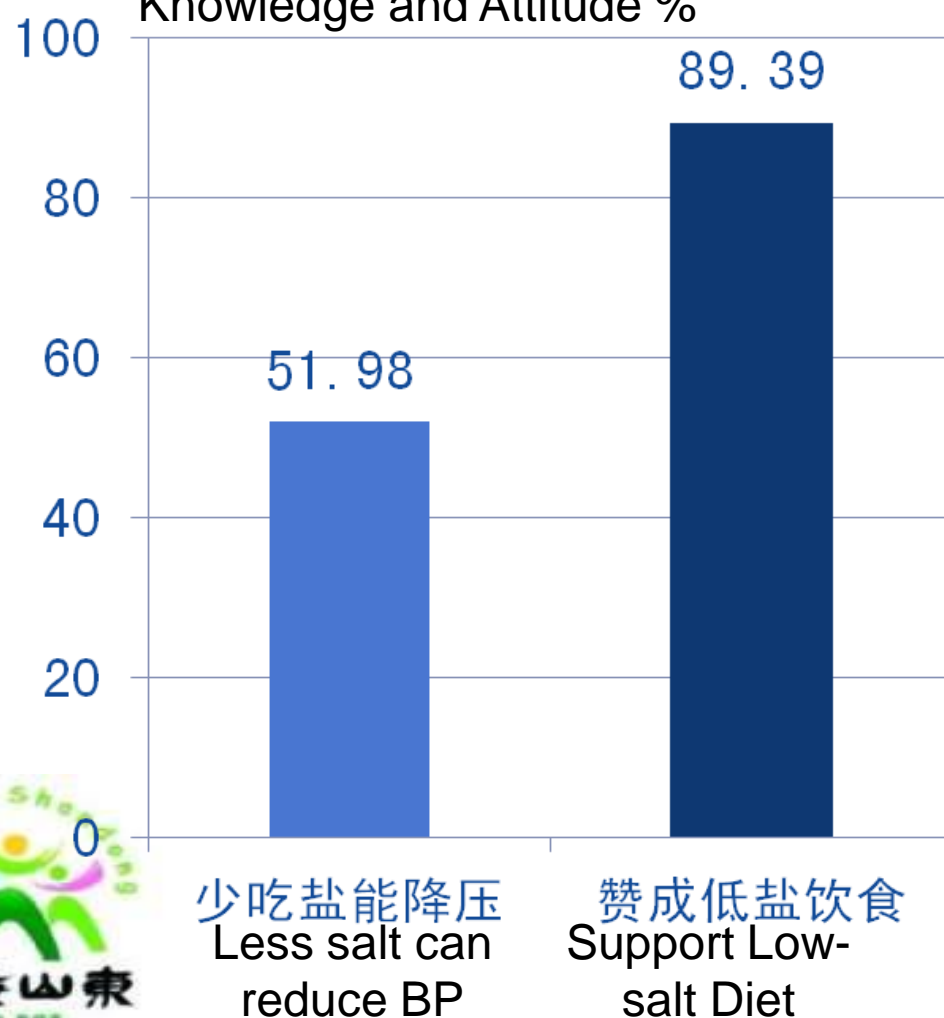
# 盐与高血压相关知识知晓率低

## Salt and HP related KAP: Low

18-69岁成人  
Adult (18-69Y)

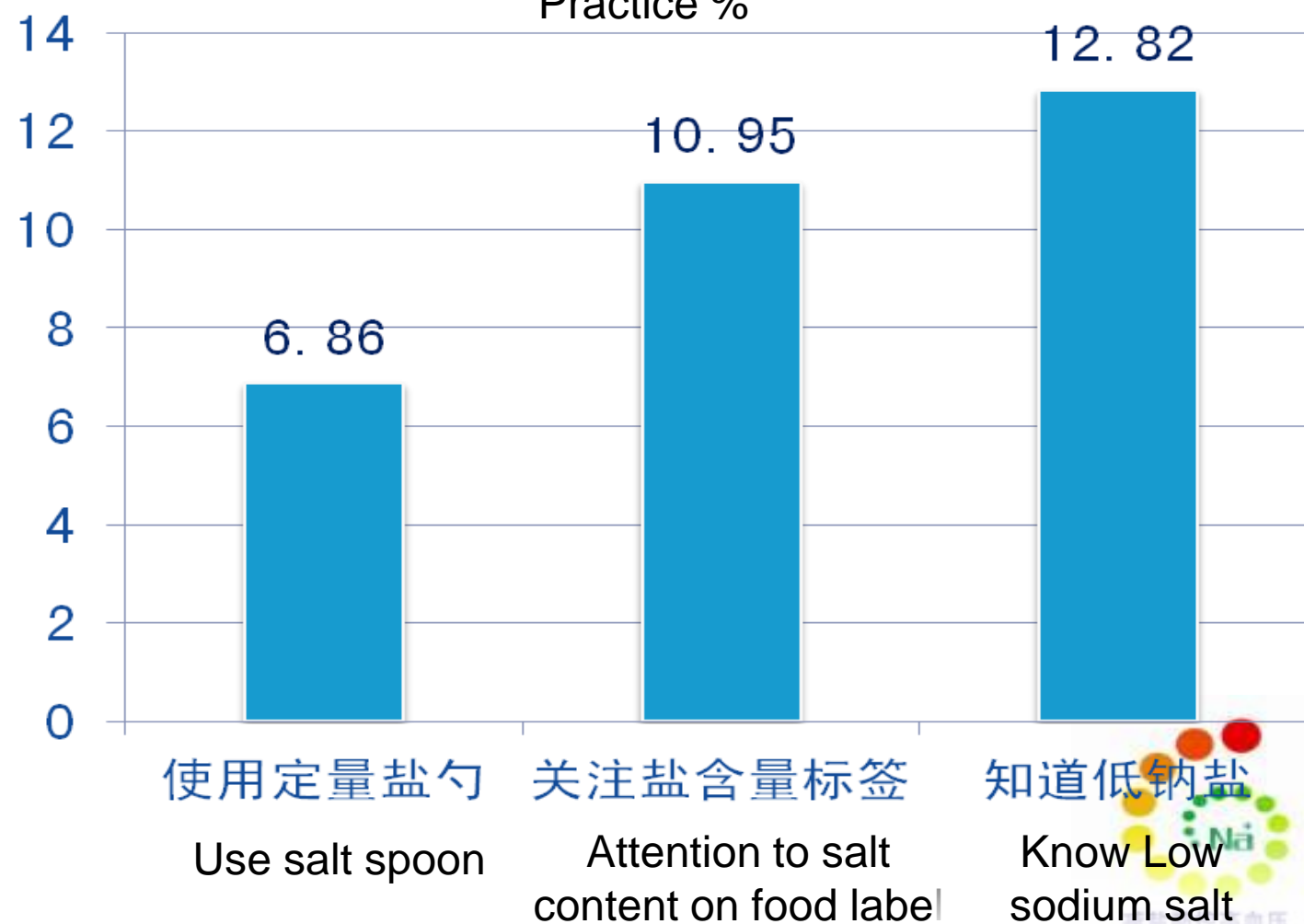
知识和态度 (%)

Knowledge and Attitude %



行为 (%)

Practice %



食品标签标示有待提高

Food labeling needs improvement

- ➡ 50%以上的酱油、酱、熟肉制品的产品标签配料表中标注了食盐成分  
50% soy sauce, sauce, cooked meat marked salt.
- ➡ 仅12%的酱油标签中标注了钠含量，其余样品均没有钠含量标注。  
Only 12% soy sauce marked the content of sodium, the rest samples did not mark

| 食品类别<br>Category          | 标示比例%<br>With salt content marked (%) |
|---------------------------|---------------------------------------|
| 酱油 soy sauce              | 76.00                                 |
| 水产制品 aquatic food         | 25.56                                 |
| 熟肉制品 cooked meat          | 73.03                                 |
| 方便食品 instant food         | 46.07                                 |
| 酱 sauce                   | 58.62                                 |
| 糕点 cake                   | 17.98                                 |
| 膨化食品 puffed food          | 12.24                                 |
| 酱腌菜 pickles               | 23.33                                 |
| 炒货 roasted seeds and nuts | 16.00                                 |





# Propaganda: dissemination of health related materials

制作多种形式的宣传材料 Disseminate Health communication materials



# Propaganda: media and place intervention

- Public interest advertisement is shown on TV and other media
- Movies about reducing salt intake are played in rural area (10000 times)
- Posters in supermarkets





# Propaganda: student health education

➡ Joint with provincial education bureau to initiate “salt and health” activities in schools

- ☀ Education about reducing salt intake
  - One lesson, one poster, and one video
- ☀ In the winter break, launch activities to encourage students help their household to reduce salt intake
  - One health brochure, one knowledge preach, one month salt intake records, and one reducing salt diary

Cover one thirds of the fourth grade students per year (0.4 million)



# Propaganda: household

- ➡ Initiate “reducing salt household contest”, and recruit volunteer household
- ☀ Compared to baseline survey, 65.8% of the household reduce their salt intake 2-3 grams per person per day
- ➡ Hold poems, drawing, and calligraphy contests about reducing salt intake
- ➡ “Family Healthy Cooking Campaign”



《科学减盐》 威海市荣成石岛实验小学 钱越画



# Propaganda: training on important targets

- ➡ Train 6 teachers on reducing salt education in each county
- ➡ Train health teachers in schools about reducing salt knowledge
- ➡ Train all levels of government officials
- ➡ Train all medical personnel
- ➡ Select health advisors from doctors, female cadres and teachers, disseminate reducing salt knowledge
- ➡ Hold health advisors' skill contest
- ➡ Guidelines for hypertension patients and high risk groups about salt reduction in the basic public health service





# Multi-sector cooperation

## ➡ Shandong cuisine

- ✦ One of the most famous eight cuisines in China
- ✦ Characteristics: salty, fresh, crispy, and tender
- ✦ Has a long history, and big influence on the north China diets

- ➡ Shandong Quality Supervision Bureau creates the criteria of Shandong cuisine. For the first time, it regulates the use of oil and salt.



# Multi-sector cooperation

- ➡ Shandong FDA
- ➡ Shandong Association of Cooking launch reducing salt campaign
  - ☀ Chef training
  - ☀ Advocate restaurants to record the use of salt, publicize the saltiness of dishes
  - ☀ Promote low-salt diets
  - ☀ Promote healthy model restaurant
  - ☀ Hold low-salt cooking contest
  - ☀ Establish 89 pilot units of low-oil, low-salt restaurants





# Multi-sector cooperation

## Food industry

- Food labeling
- Create low-salt local criteria for pickles and soy
- Promote low-salt products

Establish low-salt alliance of food industry and restaurants

(240 members)

## Bureau of Salt Administration

- Package with low salt dietary tips
- produce low-sodium salt



我国居民膳食指南建议，成人每日食盐摄入量不超过6克

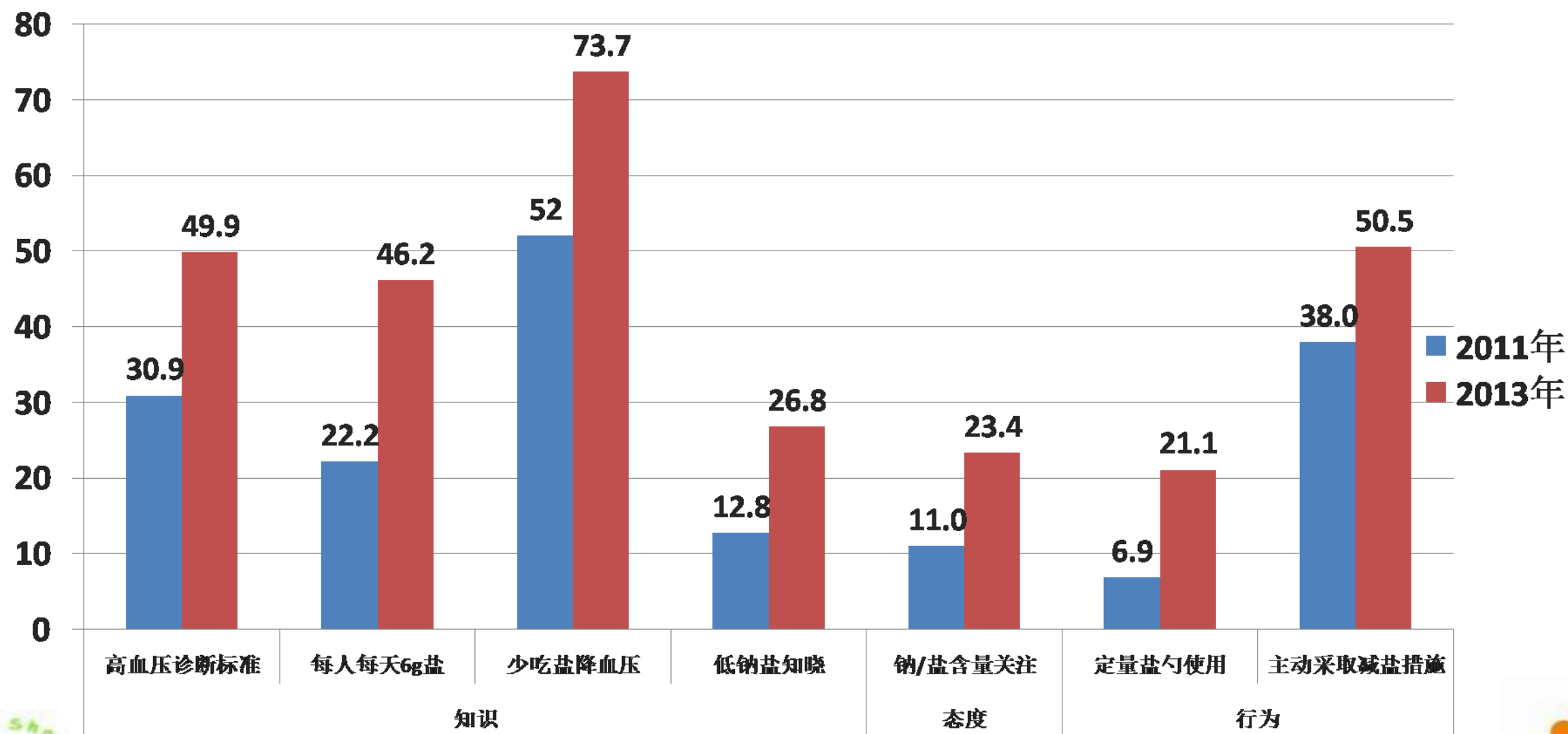
According to adult dietary guidelines, salt intake should not exceed 6 grams per day



# Main results of mid-term evaluation

- ➡ Some improvement on the citizens' knowledge about low-salt and healthy diets.
  - ✱ The awareness of the hypertension criteria increased from 30.9% in 2011 to 49.9% in 2014.
  - ✱ The awareness of salt intake criteria (6 grams per person per day) increased from 22.2% to 46.2%.
  - ✱ The usage rate of scale-salt spoon increased from 6.9% to 21.1%.
  - ✱ 94.2% of the citizens agreed on low-salt diets. The KAP test of low salt improved by 50%. Teachers, female cadres and doctors had a great impact on training and disseminating knowledge. 55.7% of this group of people use scale-salt spoon, significantly higher than others.

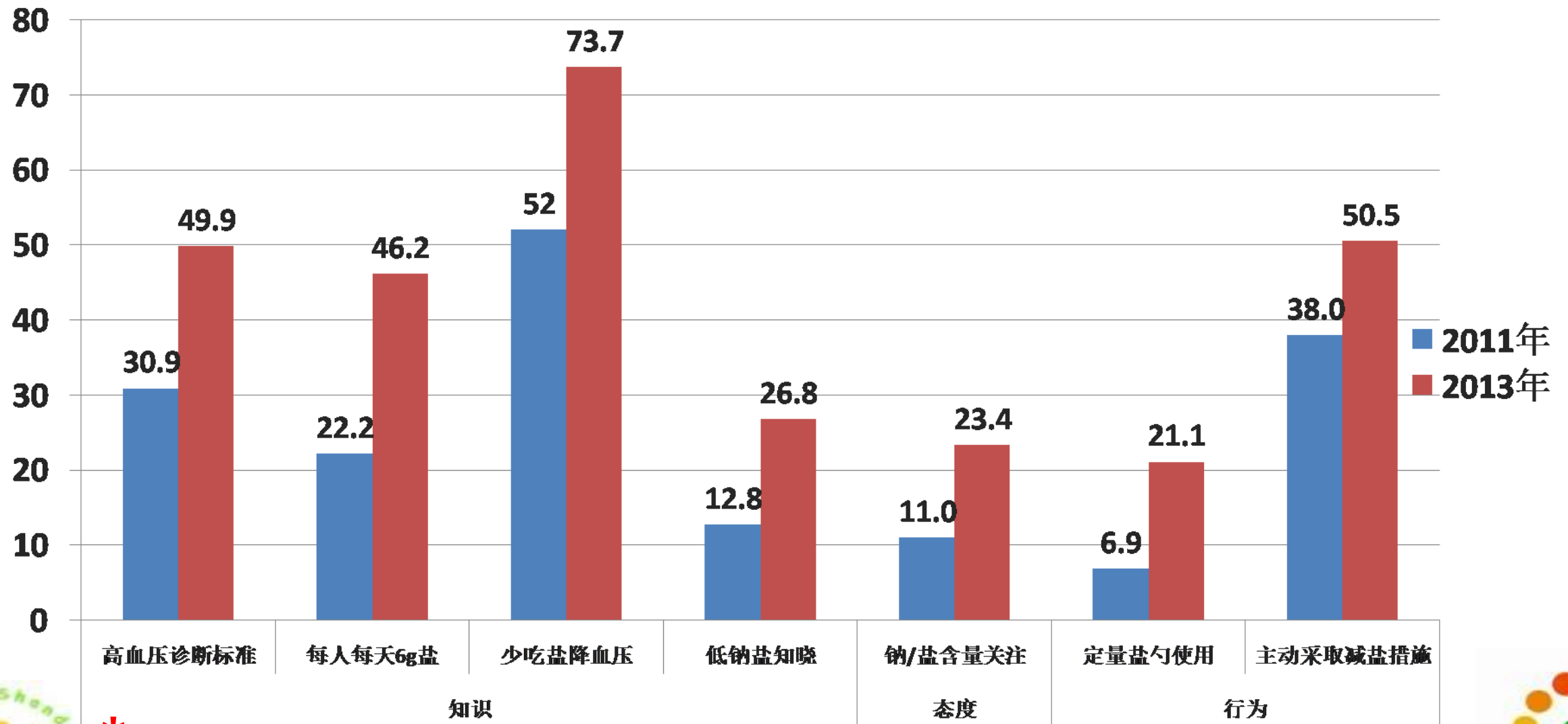
# The knowledge, attitude, practice (KAP) change related to salt intake and hypertension in the year of 2011-2013



# Main results of mid-term evaluation

- ▶ The preliminary achievements of restaurants and food industry on reducing salt intake
  - ✿ In over 50% counties in Shandong, more than five restaurants and food industries took actions to reduce salt intake.
  - ✿ In Shandong province , 46 food industry reduced the use of salt in 58 kinds of products belonging to 7 categories. Especially for Xinhe soy (欣和酱油), Dezhou chicken (德州扒鸡), Laiwu sausage (莱芜香肠), Huifa food (慧发食品).

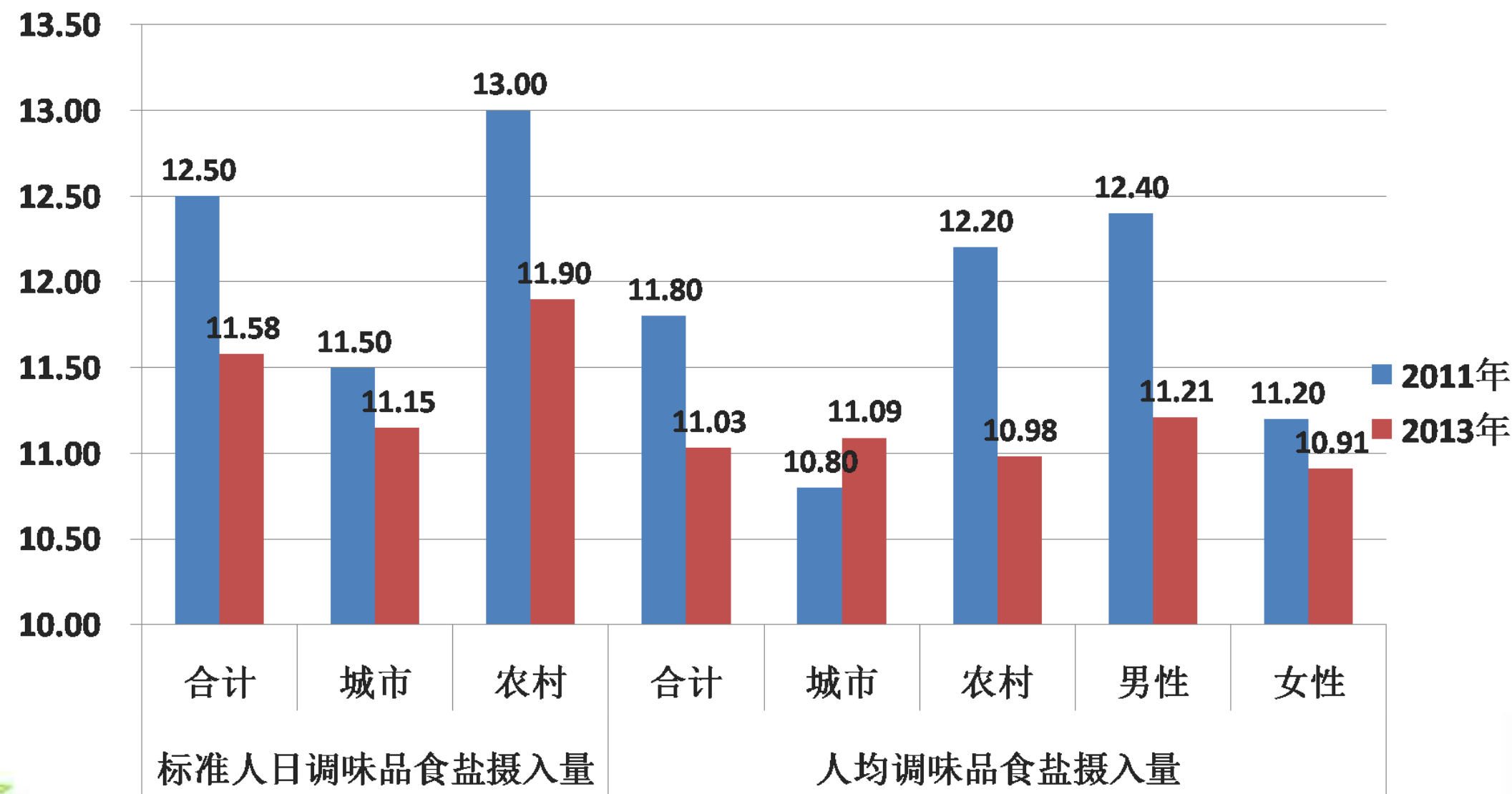
# The change of salt intake in the year of 2011-2013



\* 备注：分别对各项率进行比较，P值均小于0.05。



# The change of KAP in the year of 2011-2013





# Discussion and suggestion

- The knowledge, attitude, and practice of low-salt diet still need to be improved. Especially the usage rate of scale-salt spoon is still low, and people pay not enough attention on sodium food and initiatively reducing salt intake. According to international experience, the change of residents' diet need to go through a long process. The knowledge and practice may mismatch each other. (interviewee may say, “the food is no longer delicious with low-salt intake”, or “I eat a lot of salt, however, I do not have hypertension”)
- The food industry do not have enough incentives to reduce salt intake, therefore, the support of law is needed to promote their actions.
- The action is unbalanced in different localities. The areas which apply for hygienic city and chronic disease prevention model city works better than other localities.

# The future plans

- ➡ Incorporate SMAH into the second round of “healthy Shandong actions” (2014-2016)
- ➡ Adjust intervention strategies based on the results of mid-term evaluation
- ➡ Reinforce the intervention of important targets and main places
  - ➡ Students of primary schools and high schools
  - ➡ Canteen ,restaurants
  - ➡ Food industry
  - ➡ The guidance of the usage of scale-salt spoon
  - ➡ Online training, the new we - media
- ➡ Reinforce supervision and evaluation of the projects



# Thank You

