

# **Nutrition Status of Micronutrient in Chinese Population**

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**2007.4.17**



# Sample distribution of 132 counties(Districts)

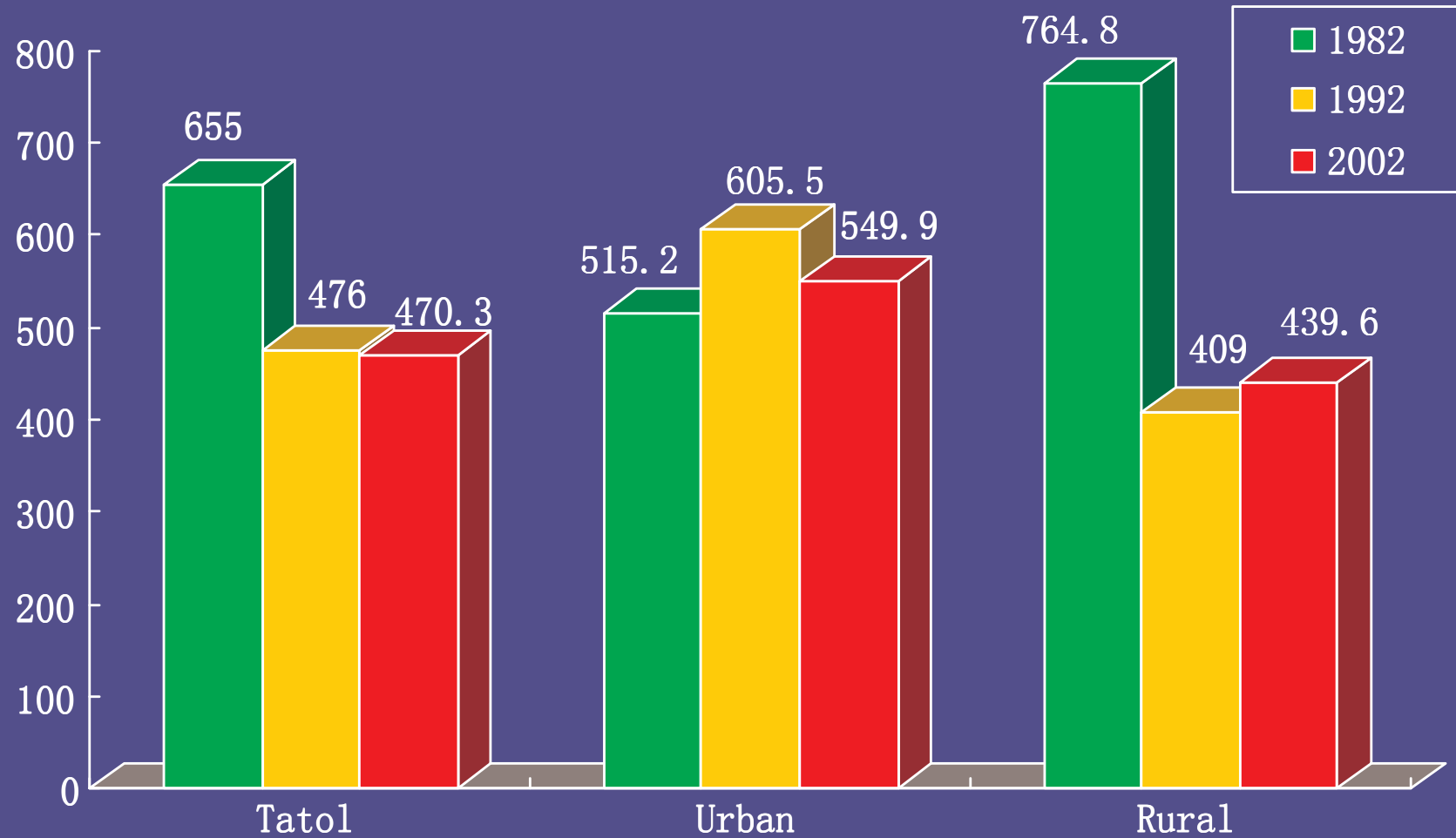
# Sample Numbers

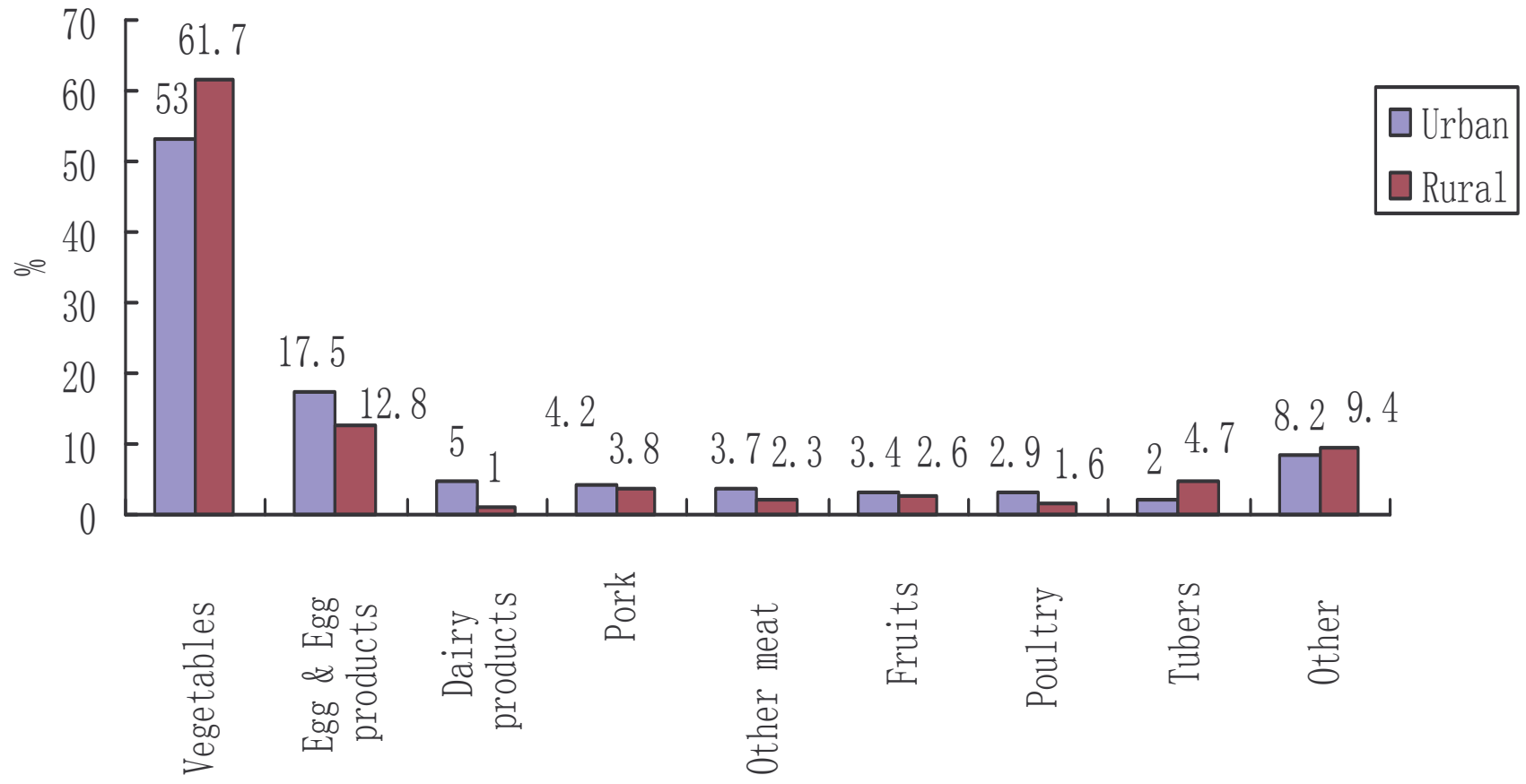
- Household 71,971, Population 243,479
- Health examination 221,044
- Hemoglobin test 211,726
- Plasma vitamin A measurement 21,834.

**Children 13,870(3-12y) , Women 3,031 ,Elderly 4,933**

- Dietary survey: Household 23,470,  
Population 68,962

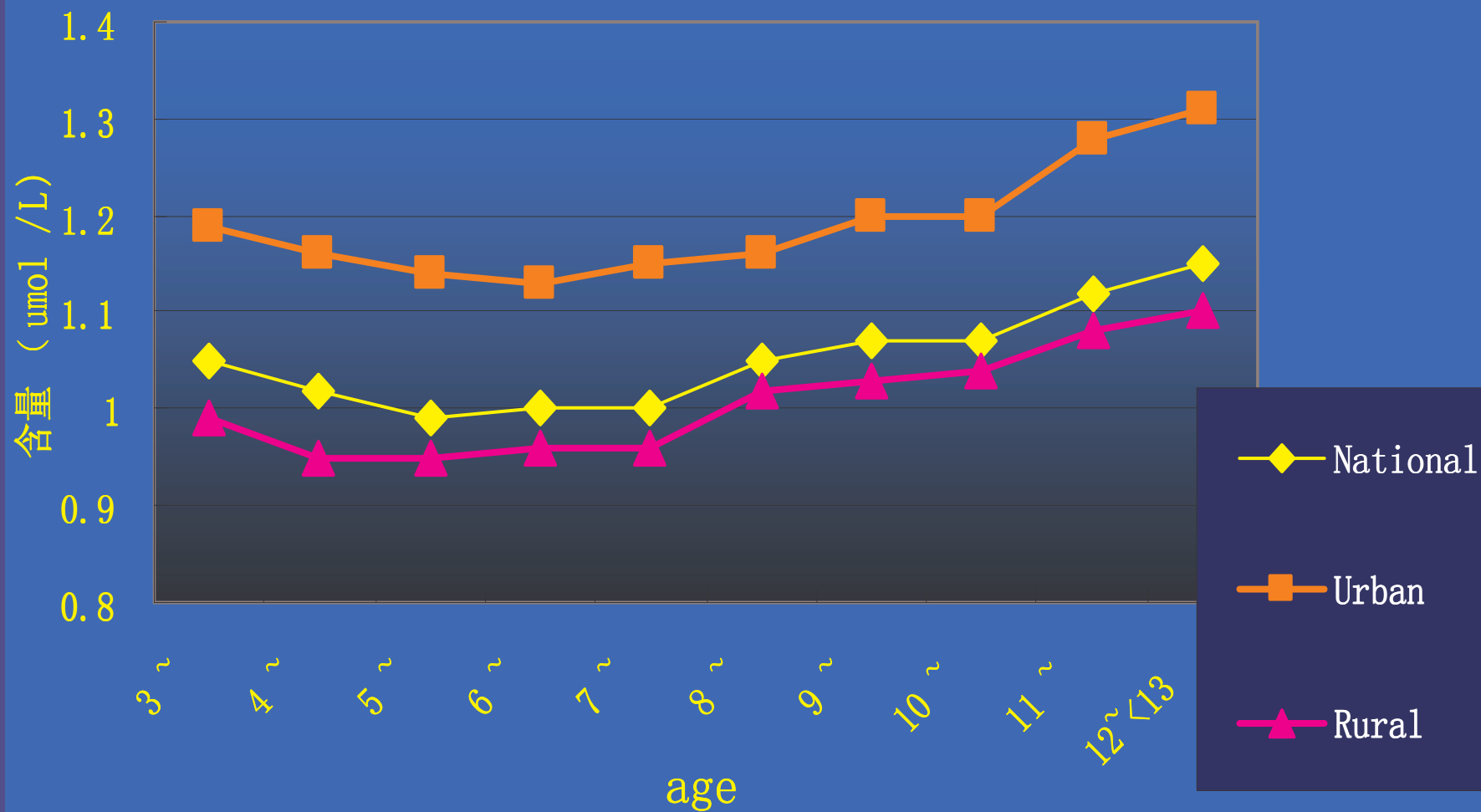
# 1982-2002 $V_A$ Intake in Chinese Population (R. E. ( $\mu$ g) /R. P./Day)



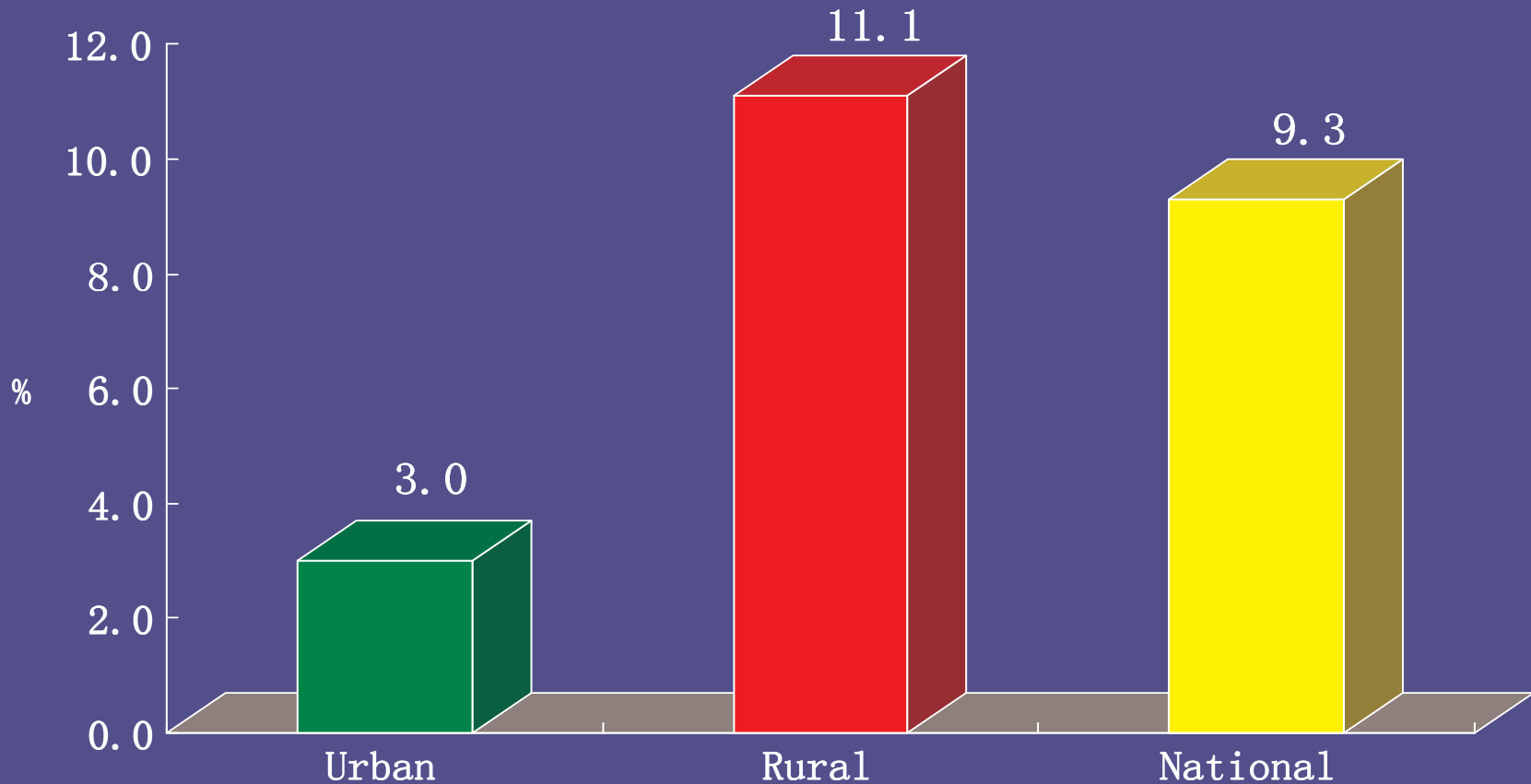


Food resource of Vitamin A

# Plasma retinol level of Chinese children (3-12y) ( $\mu\text{mol/L}$ )

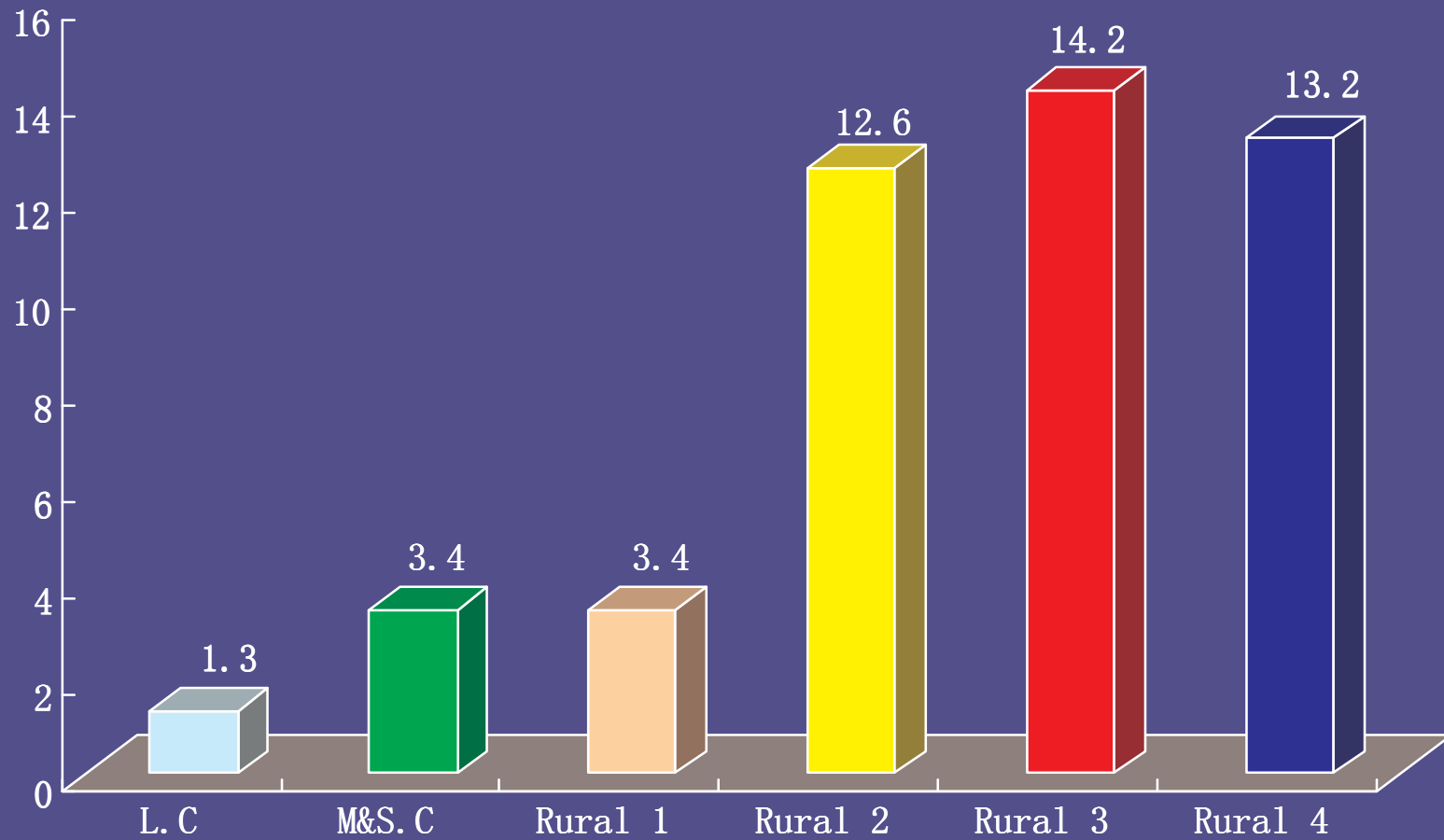


## The prevalence of vitamin A deficiency in children ( 3 -12 years old ) ( % )

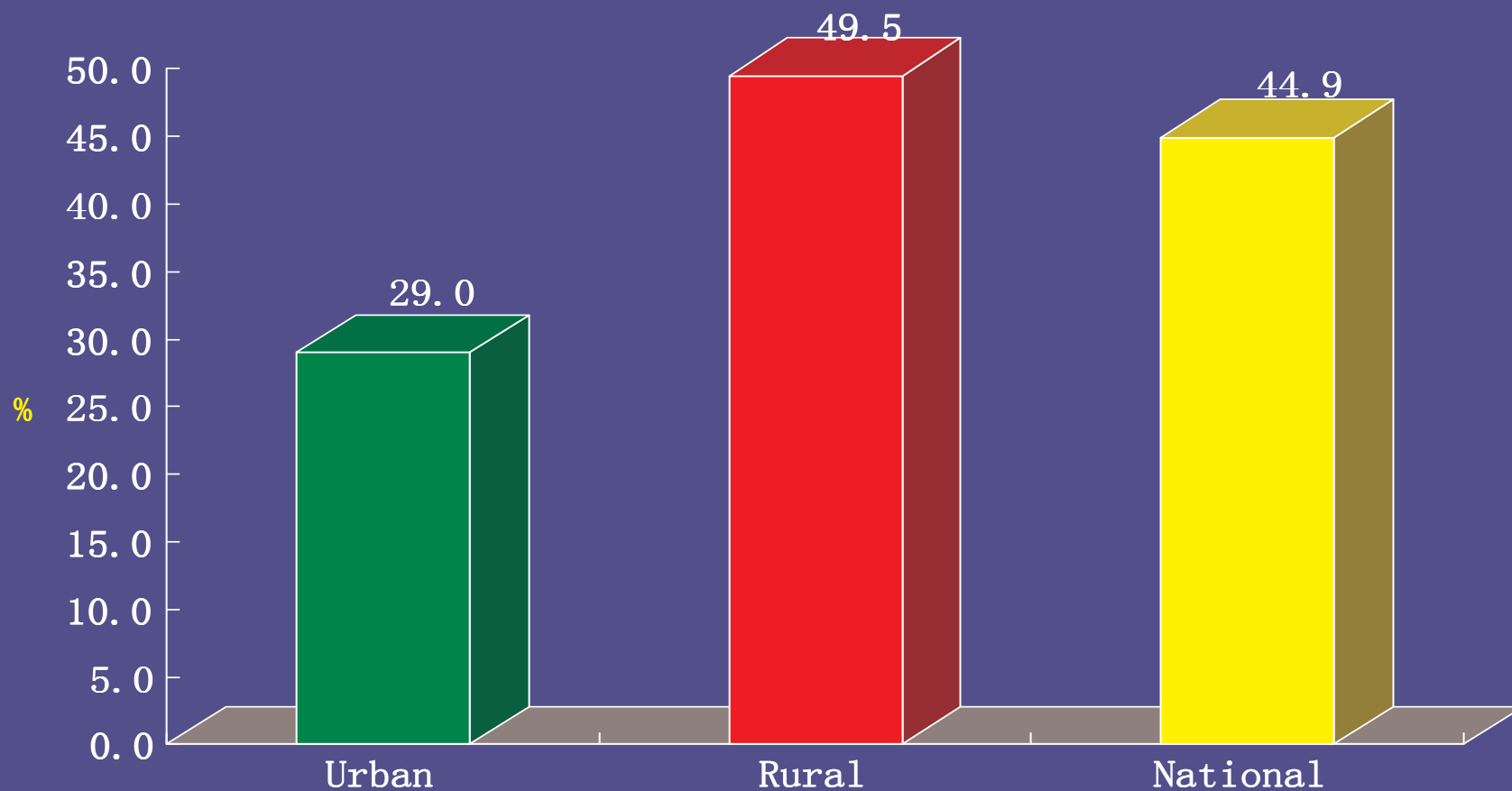


Diagnostic criteria :  $V_A(\text{plasma}) < 20 \mu \text{g/dl}$

# The prevalence of vitamin A deficiency in children ( 3 -12 years old ) ( % )

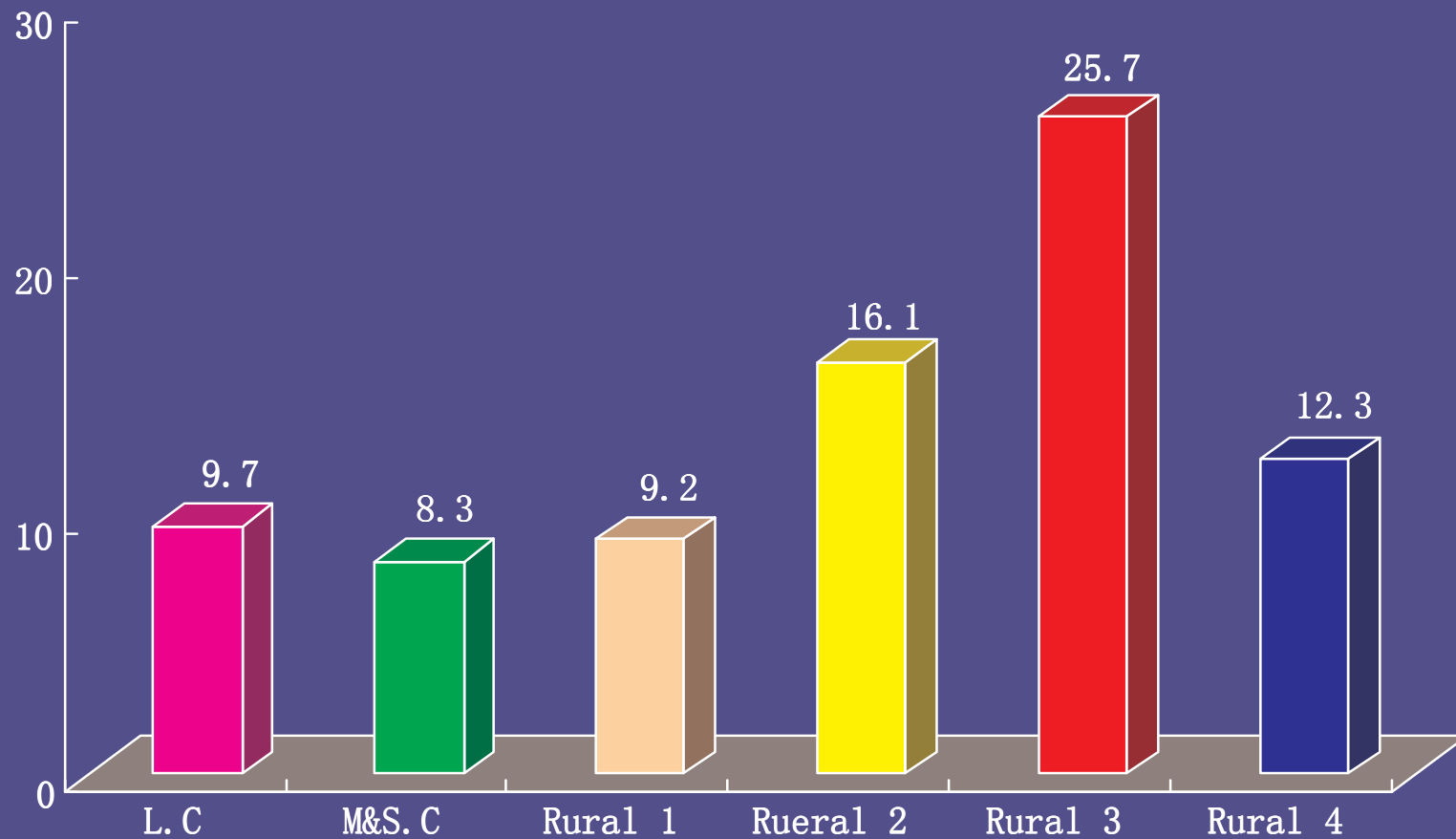


# The prevalence of vitamin A marginal deficiency in children ( 3 - 12 years old ) ( % )

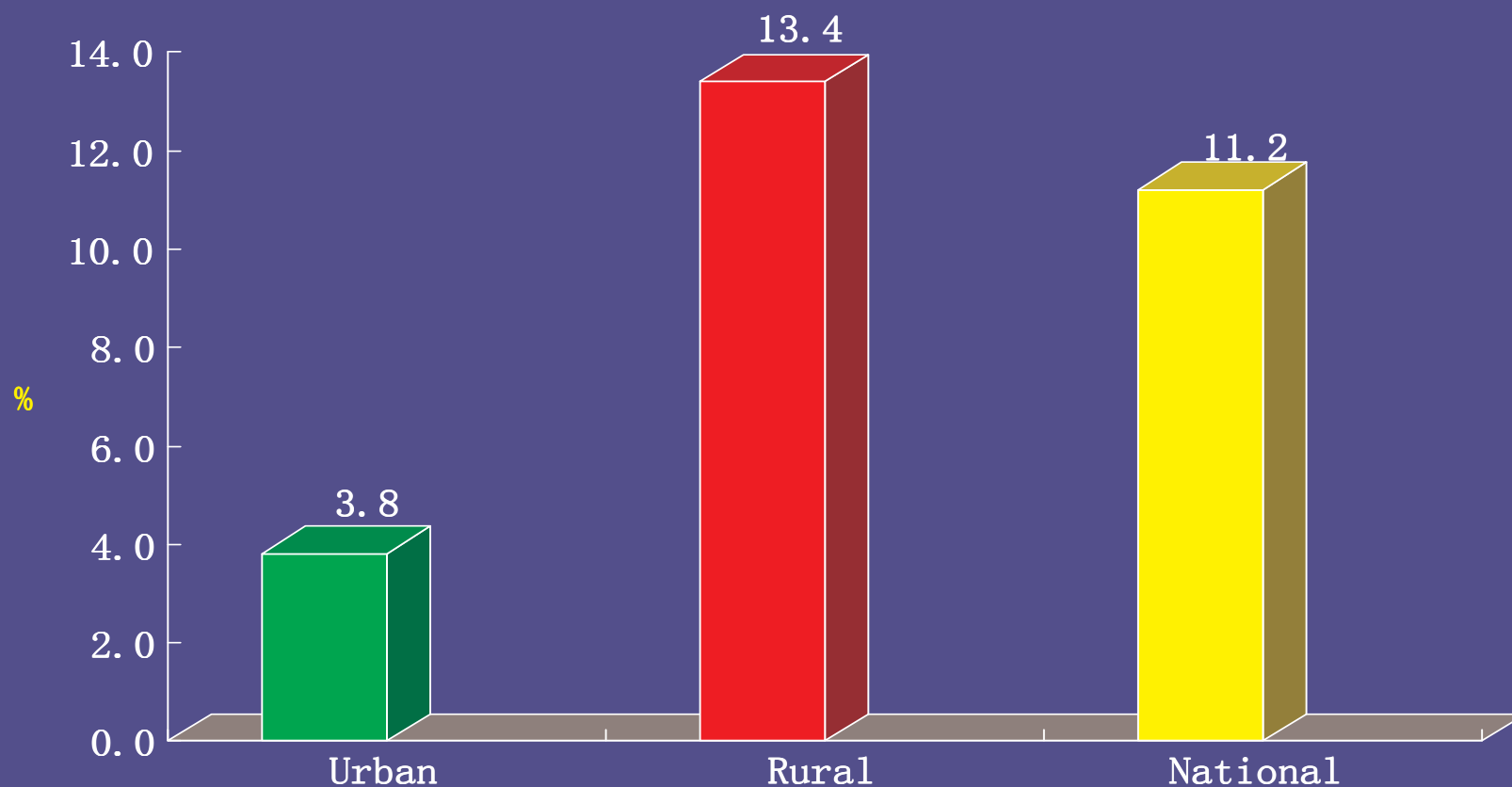


Diagnostic criteria :  $V_A(\text{plasma})$  20–29  $\mu\text{g/dl}$

# The prevalence of plasma retinol level <math><1.05 \mu\text{mol/L}</math> in Chinese women (20-45y) (%)

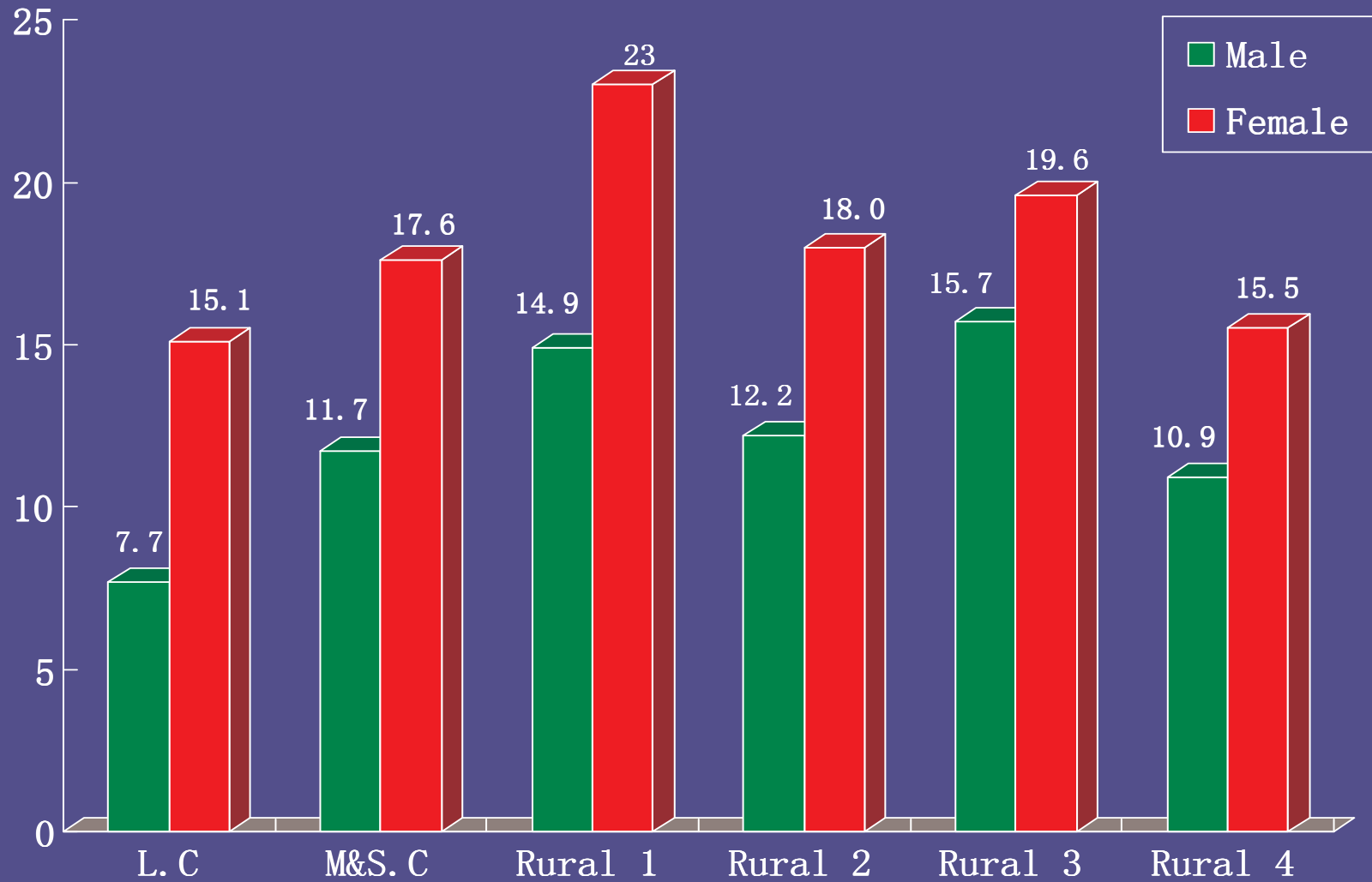


# The prevalence of plasma retinol level <math>1.05 \mu \text{ mol/L}</math> in elderly population of China (%)



Diagnostic criteria :  $V_A(\text{plasma}) < 30 \mu \text{ g/dl}$

# The prevalence of anemia (%)



# The prevalence of anemia (%)

	National	Urban	Rural	Poor Rural
<b>Women (20-45y)</b>	<b>26.2</b>	<b>23.7</b>	<b>27.2</b>	<b>26.7</b>
<b>Children U-5</b>	<b>18.8</b>	<b>12.7</b>	<b>20.8</b>	<b>23.3</b>
<b>Elderly &gt;60</b>	<b>28.0</b>	<b>21.3</b>	<b>30.4</b>	<b>34.0</b>

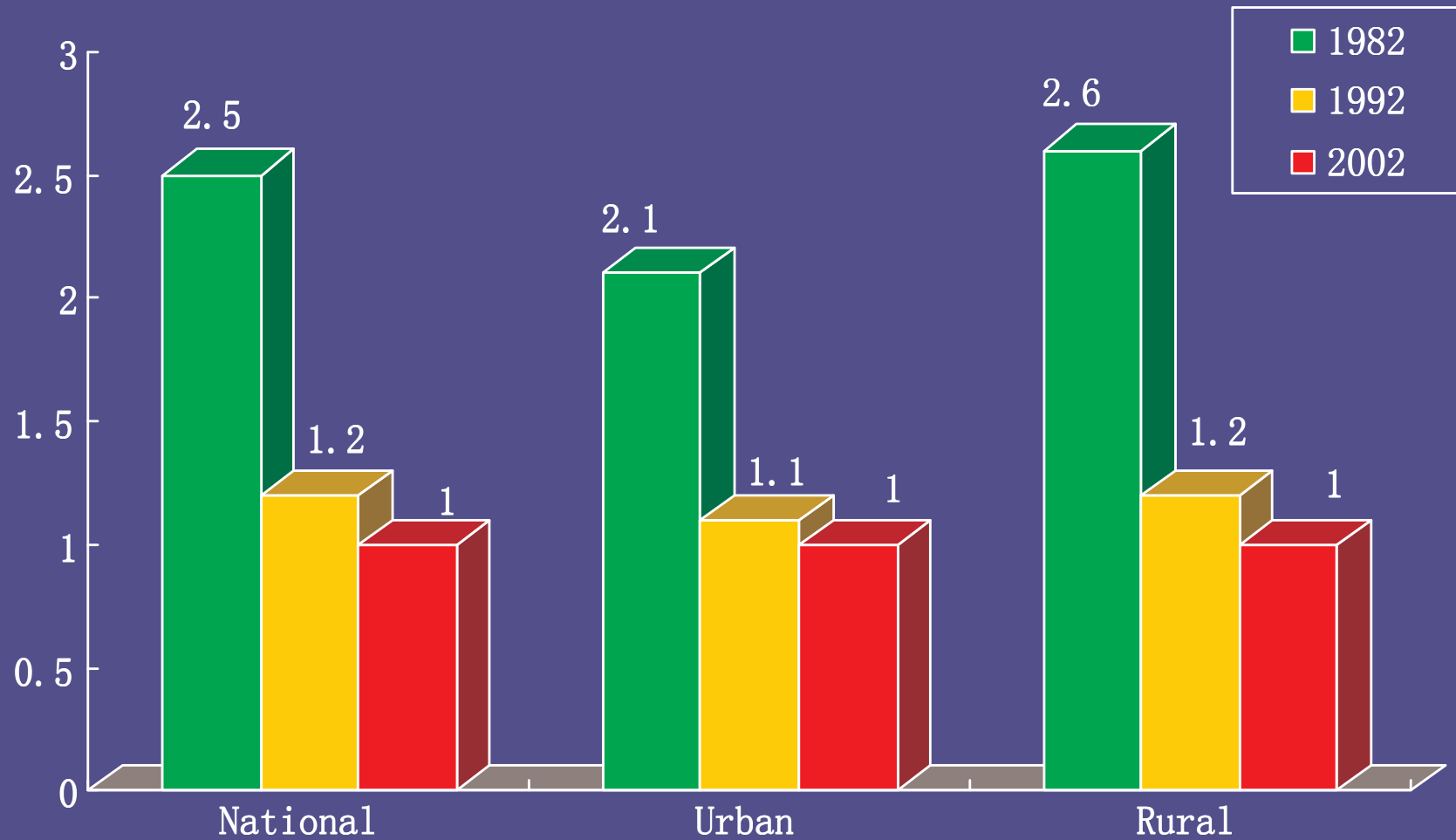
## The comparison of anemia prevalence in Chinese female population (%)

	Urban		Rural	
Age	1992	2002	1992	2002
合计	25.8	20.1	23.3	24.9
0~	28.8	24.5	30.0	32.8
2~	12.8	5.8	16.9	13.3
5~	15.7	9.0	17.0	13.3
12~	22.7	13.0	16.3	19.0
18~	26.5	23.7	24.7	27.2
45~	29.1	21.1	27.2	28.0
60~	31.5	20.9	32.9	31.3

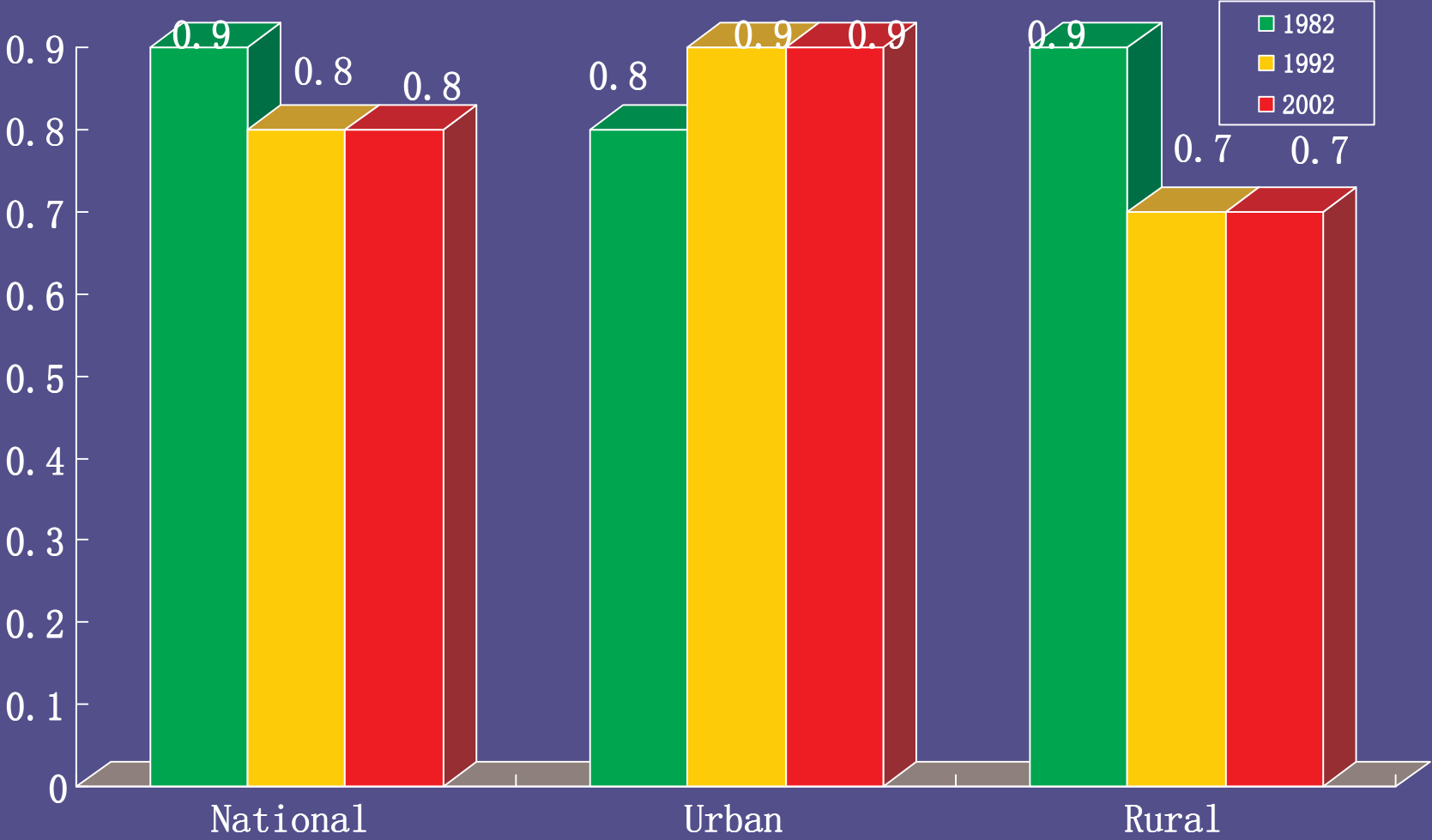
## The comparison of anemia prevalence in Chinese male population (%)

	Urban		Rural	
Age	1992	2002	1992	2002
合计	15.2	12.0	17.8	18.0
0~	23.0	29.9	29.5	33.9
2~	13.3	7.2	18.1	15.6
5~	14.8	8.4	14.7	14.0
12~	12.9	11.2	16.5	16.2
18~	11.9	10.9	14.4	14.6
45~	16.3	13.1	20.6	21.5
60~	26.2	18.3	34.1	31.9

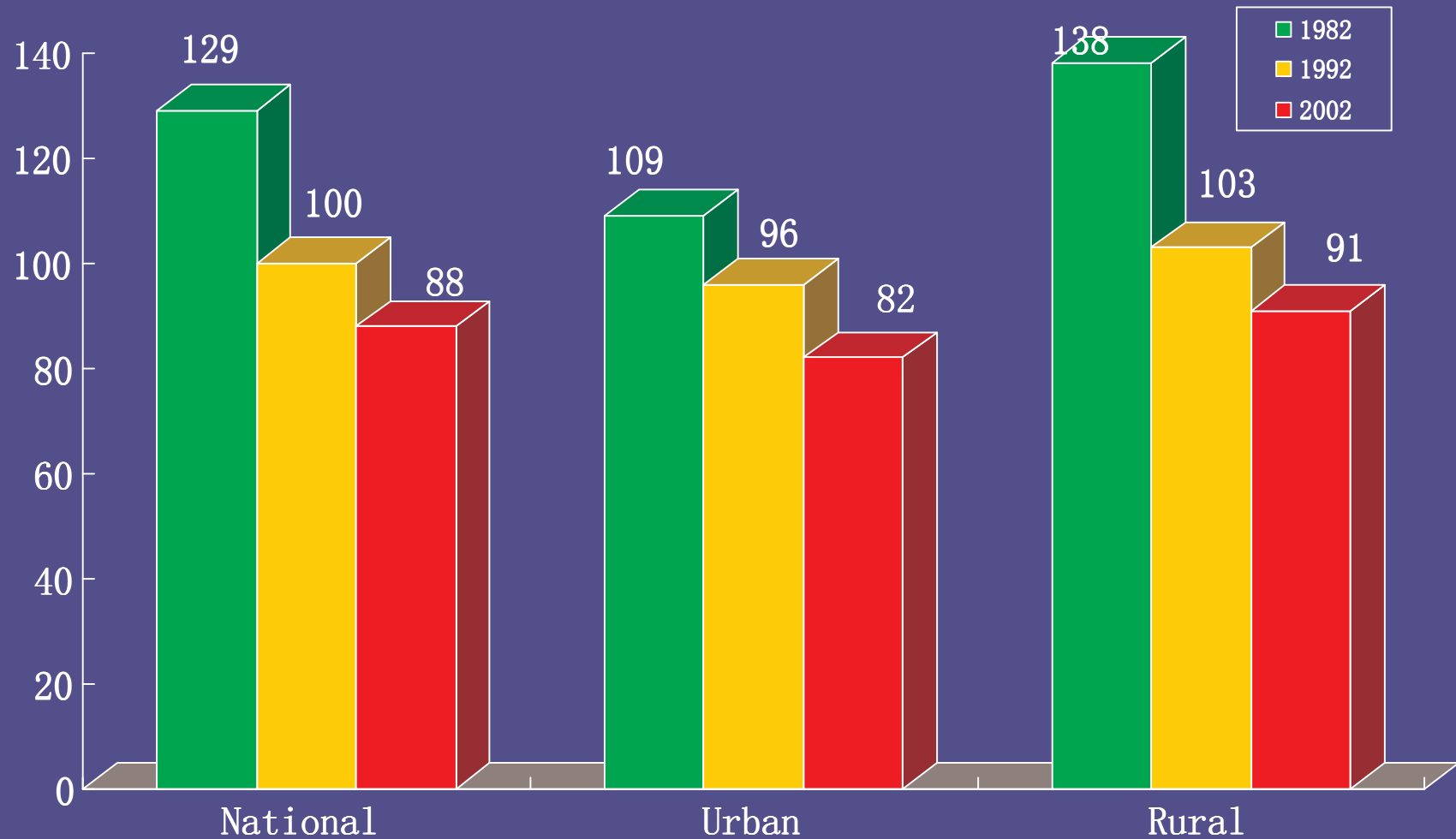
## Thiamin Intake in Chinese Population( mg /R. P./Day)



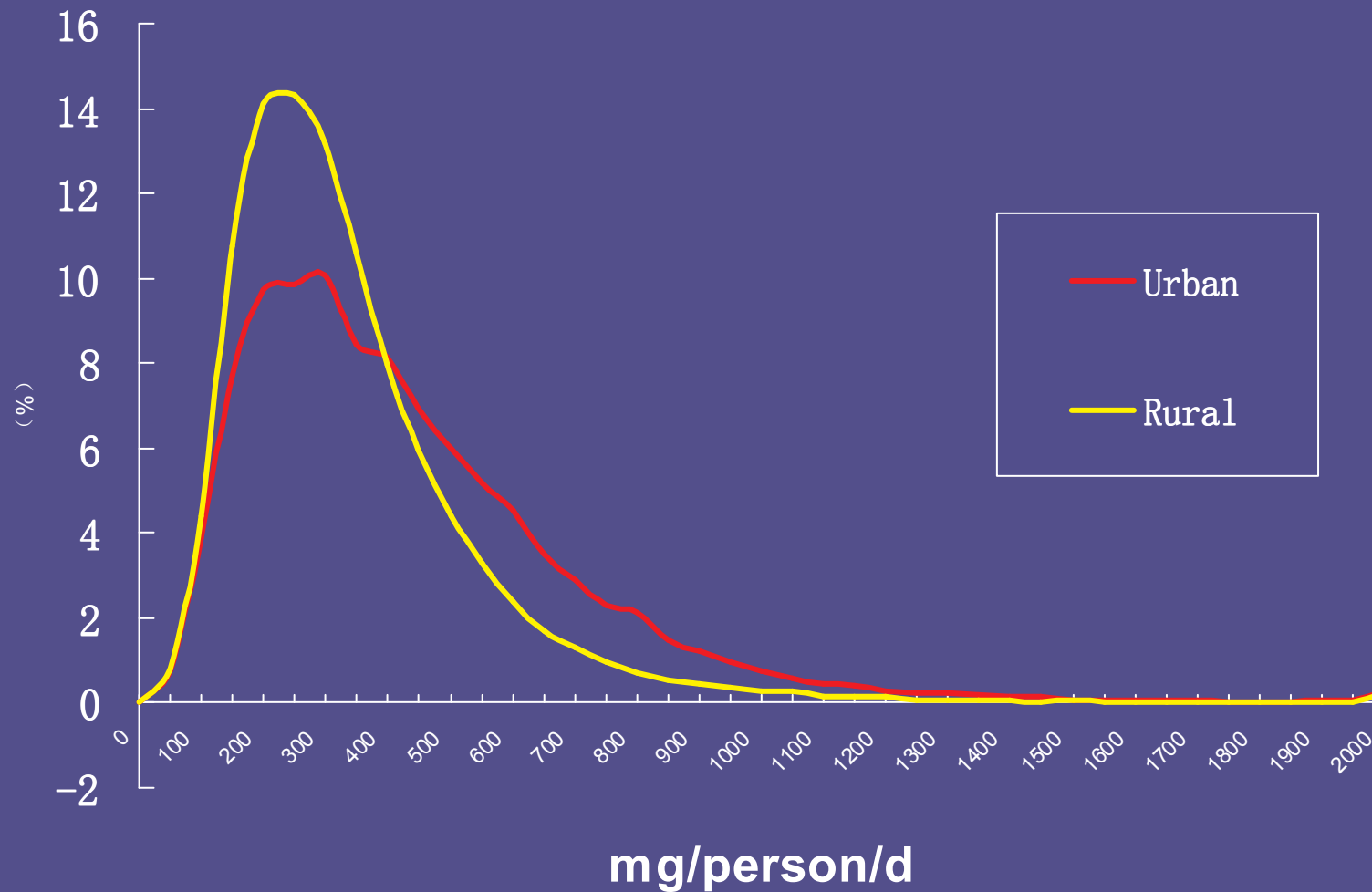
# Riboflavin Intake in Chinese Population( mg /R. P./Day)



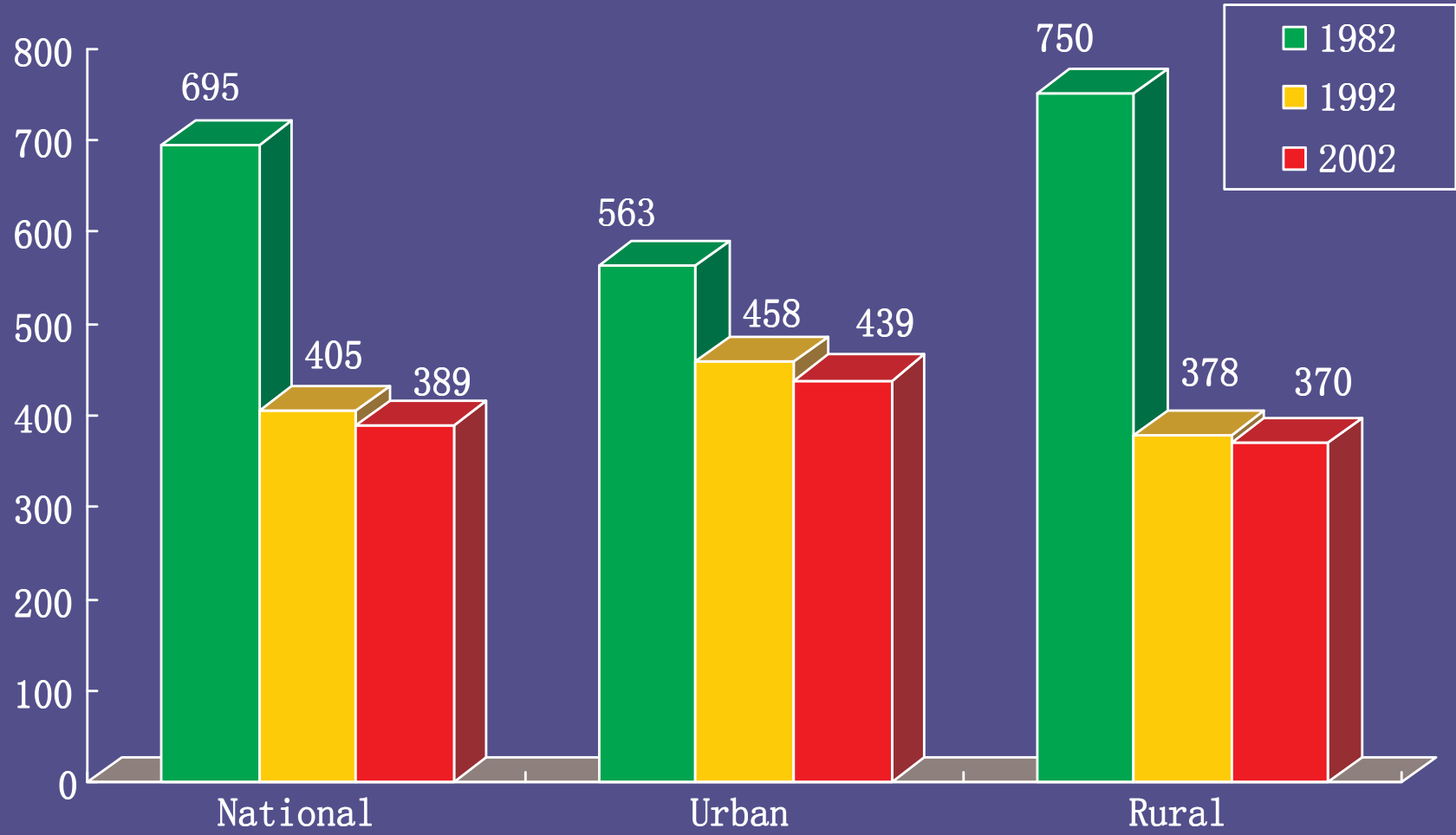
# Ascorbic acid Intake in Chinese Population ( mg /R. P./Day)



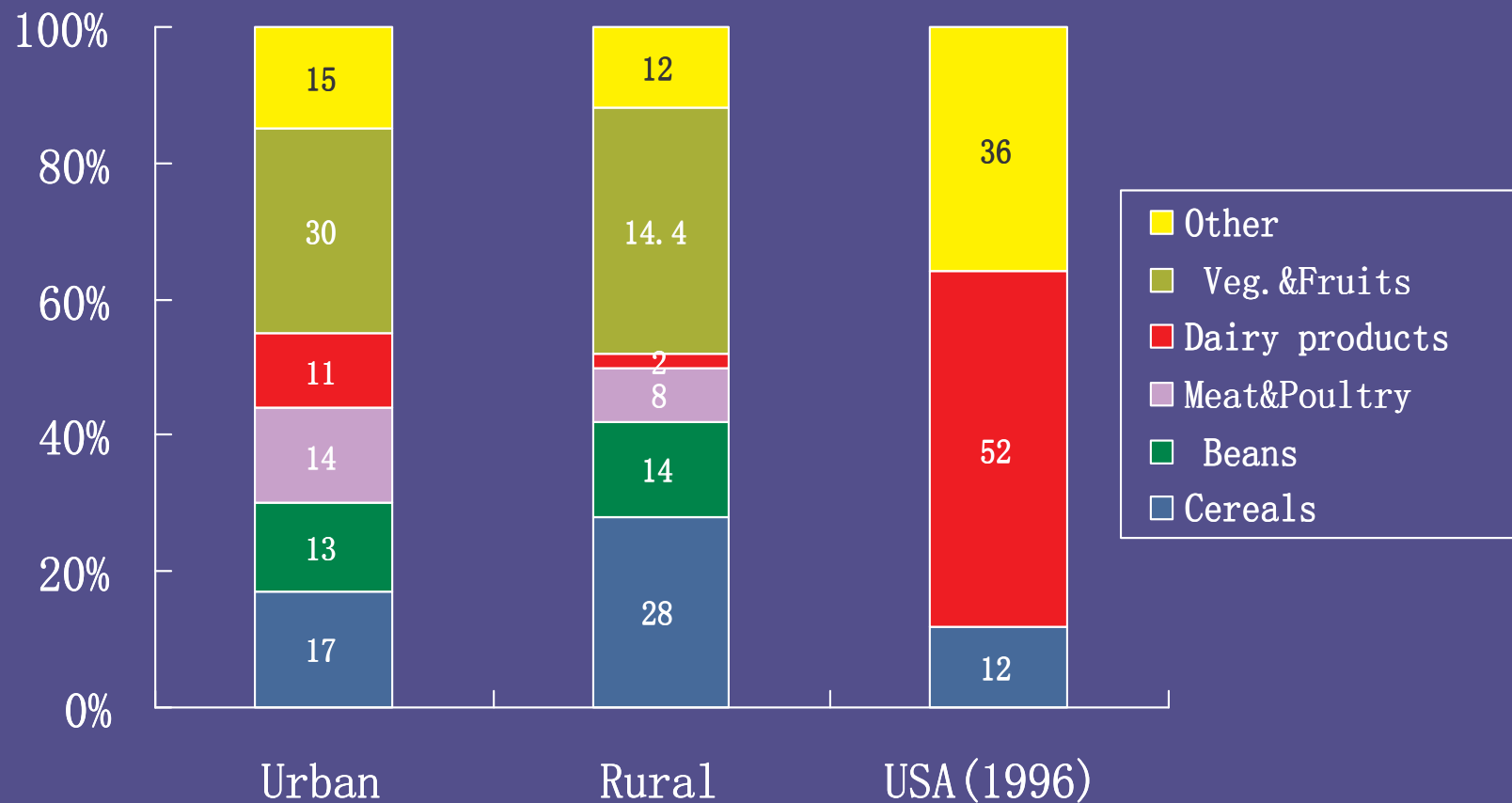
# Calcium Intake Distribution



# Calcium Intake in Chinese Population (mg /R. P./Day)



# Food Resource of Calcium (%)



# Conclusion

- Comparing with 1992, there were no distinct differences for the intakes of most of micronutrients in Chinese population.
- The intake levels of many micronutrients such as  $V_A$ ,  $VB_1$ ,  $VB_2$  and Ca were low.

# Conclusion

- **Micro-nutriments deficiency such as iron and vitamin A is a problem commonly existed among the urban and rural population.**
- **The prevalence of anemia among children(U-5), women(20-45y) and elderly was 26.2%, 18.8% and 28.0% separately in China.**

# Conclusion

- **The prevalence of vitamin A deficiency among the children (3-12 y) was 9.3, it was 3.0% in the urban and 11.2% in rural, the prevalence of marginal vitamin A deficiency was 45.1%, it was 29.0% in the urban and 49.6% in the rural.**

# Conclusion

- **Special policy is needed for improvement of nutrition status of micronutrient for Chinese population.**
- **The improvement measures should be put in practice, such as foods fortification of vitamin A and iron for the target population, especially for the children of rural areas.**

# Acknowledgement

- Province & Local Governments
- Investigation Teams (3500)
- Investigated individual
- Sight and Life

**Thank you**

