



DEPARTMENT OF HEALTH
BUREAU OF NUTRITION

Iodine Surveillance to prevention and control program

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SCOPE

- History of IDD Prevention and Control in Thailand
- National Strategies
- Situation of IDD from IDD surveillance system





History of IDD Prevention and Control in Thailand

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(1953 - 1968)

**Goitre
Rate**

58.0%

45.5%



**First report
Endemic Goitre
Goitre Belt**

1953



**First survey By
WHO N & NE**

1955



**National Survey
Endermic
Goitre as Public
Health Problem**

1960



**Iodized Salt
Distribution
to Problem areas**

1968



History of IDD Prevention and Control in Thailand

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(1989 - 1997)

Goitre
Rate

19.3%

15.3%

7.9%

3.3%



National
IDDICP

1989



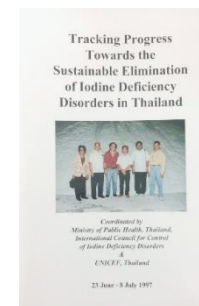
National IDD
Board

1991



Legislation
Iodized Salt
 ≥ 30 ppm

1994



1st IDDCP
Review by
ICCiDD WHO
UNICEF

1997



History of IDD Prevention and Control in Thailand

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(2000 - 2010)

UI Pregnant woman

153
(mcg/L)

112
(mcg/L)

101.6
(mcg/L)

117.8
(mcg/L)

142
(mcg/L)



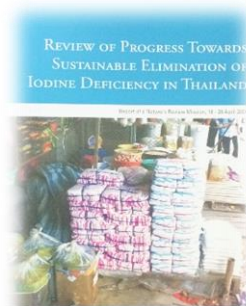
IDD Surveillance System (Cyclical Monitoring)

2000



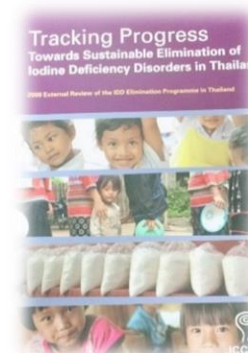
(I-Kit) IS Test Kit development

2001



I-Reader QA at Salt Factory 2nd IDDCP Review by ICCIDD/WHO /UNICEF

2004



3rd IDDCP Review by ICCIDD WHO UNICEF

2009



Revise Salt Legislation 20-40 ppm Foetify → other condiments

2010



History of IDD Prevention and Control in Thailand

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(2011 - 2018)

UI Pregnant woman

181.6
(mcg/L)

146.0
(mcg/L)

145.0
(mcg/L)



- Iodine village Program
- Iodine Supplement all pregnant project



4th IDDCP
Review by
ICCIDD WHO
UNICEF



Sustainable Iodized
Salt Initiative



STRIPE Study
With IGN

2011

2013

2016

2018

National Strategies

Main Strategies “Iodized Salt”

- Legislation
- Machine Development
- Iodized Salt Fund
- Iodized Salt Producers Association (ISPA)
- Test Kit (I-Kit)/I-Reader/Titration
- QA System (in house/post marketing)
- Research (NaCl intake/Iodine intake)
- Sustainable Iodized Salt Initiative



National Strategies

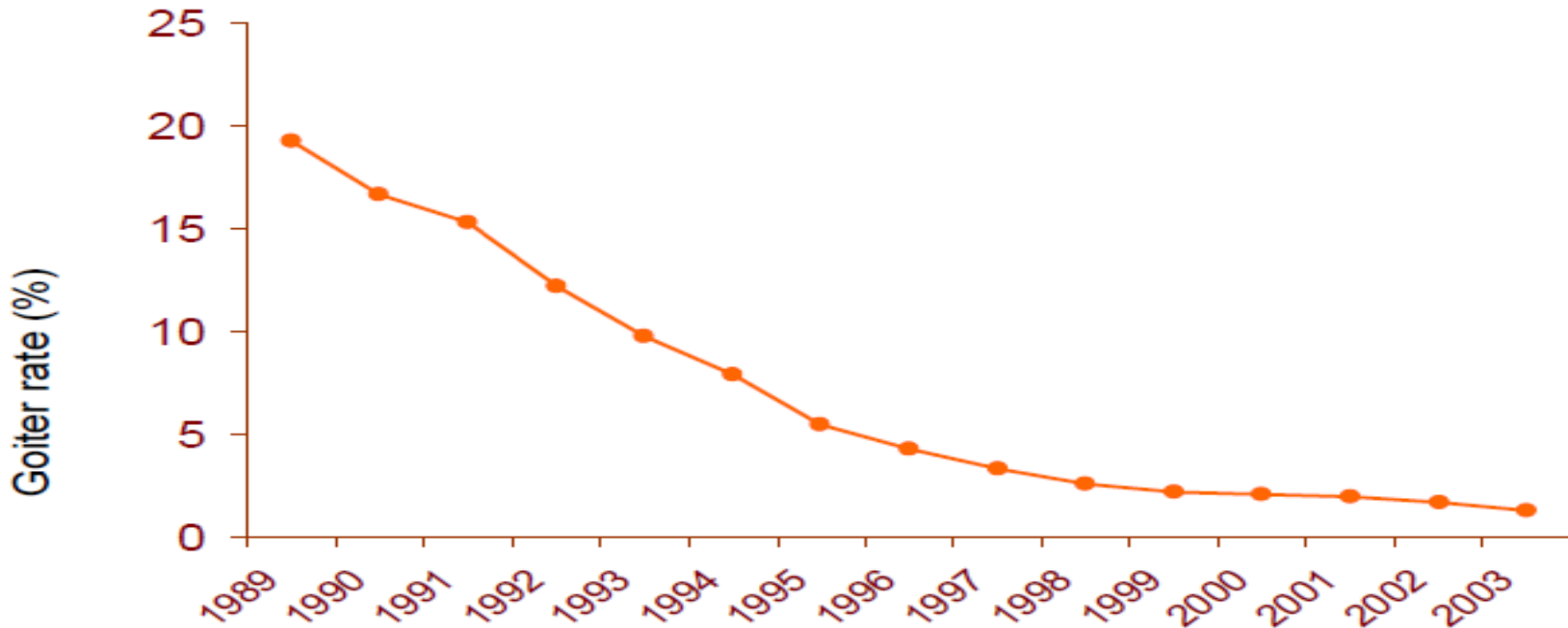
Others Measures

- Iodine supplementation tablet for pregnant women and lactating women during the first six months of lactation period
- Iodized drinking water for particular remote areas
- Iodine fortification in other food such as fish sauce, salt brine and seasoning products of soybeans



Surveillance System

- 1989 → Goiter rate in school children up until 2003

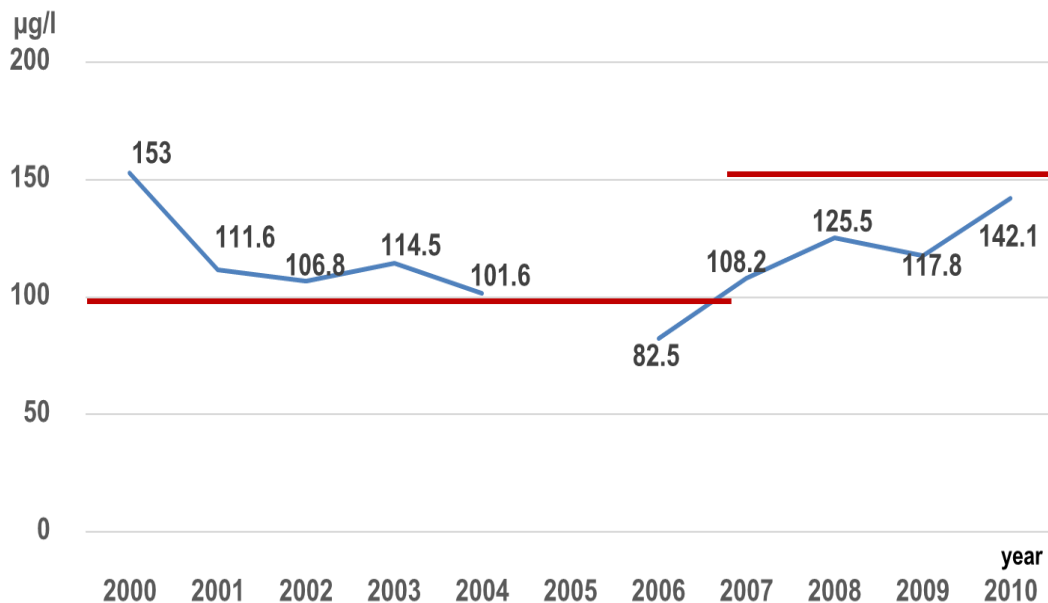


Ref.- Nutrition Division, Department of Health,
MOPH.

Surveillance System

■ Cyclical Monitoring of Urine Iodine in Pregnant Woman (2000→ present)

2000-2010 : Median urine iodine in pregnant women
(300 pregnant women/province, 15 provinces/year)



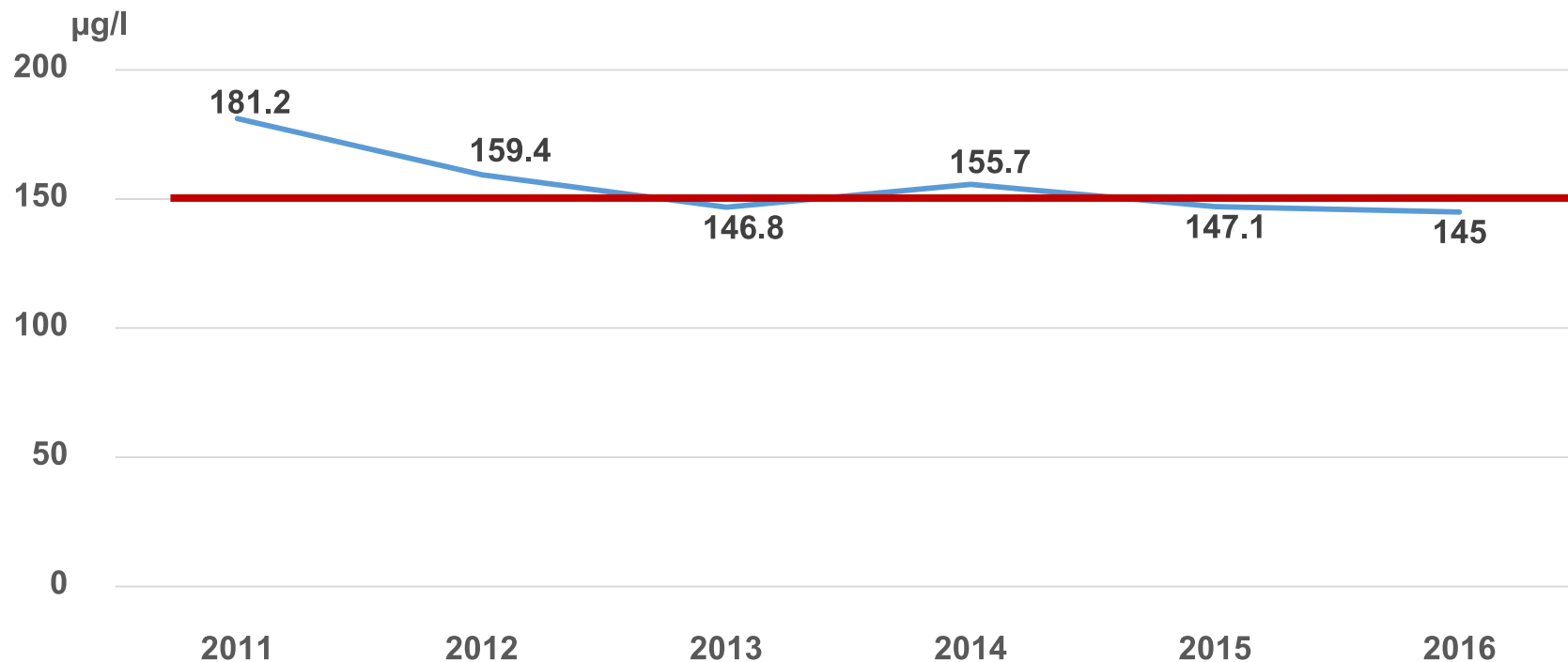
normal, before 2007 = 100 µg/l
After 2007 = 150 µg/l

- 5 years interval is too long
- Unreliable prediction
esp. pregnant woman
(highest risk)
- Pregnant woman is not the only
risk group
 - Preschool children (3-5 yrs old)
 - Ederly group (>60 yrs)

Surveillance System

- Cyclical Monitoring (2011- present) → pregnant women : monitor annually

Median Urine Iodine in Pregnant women (2011-2016)

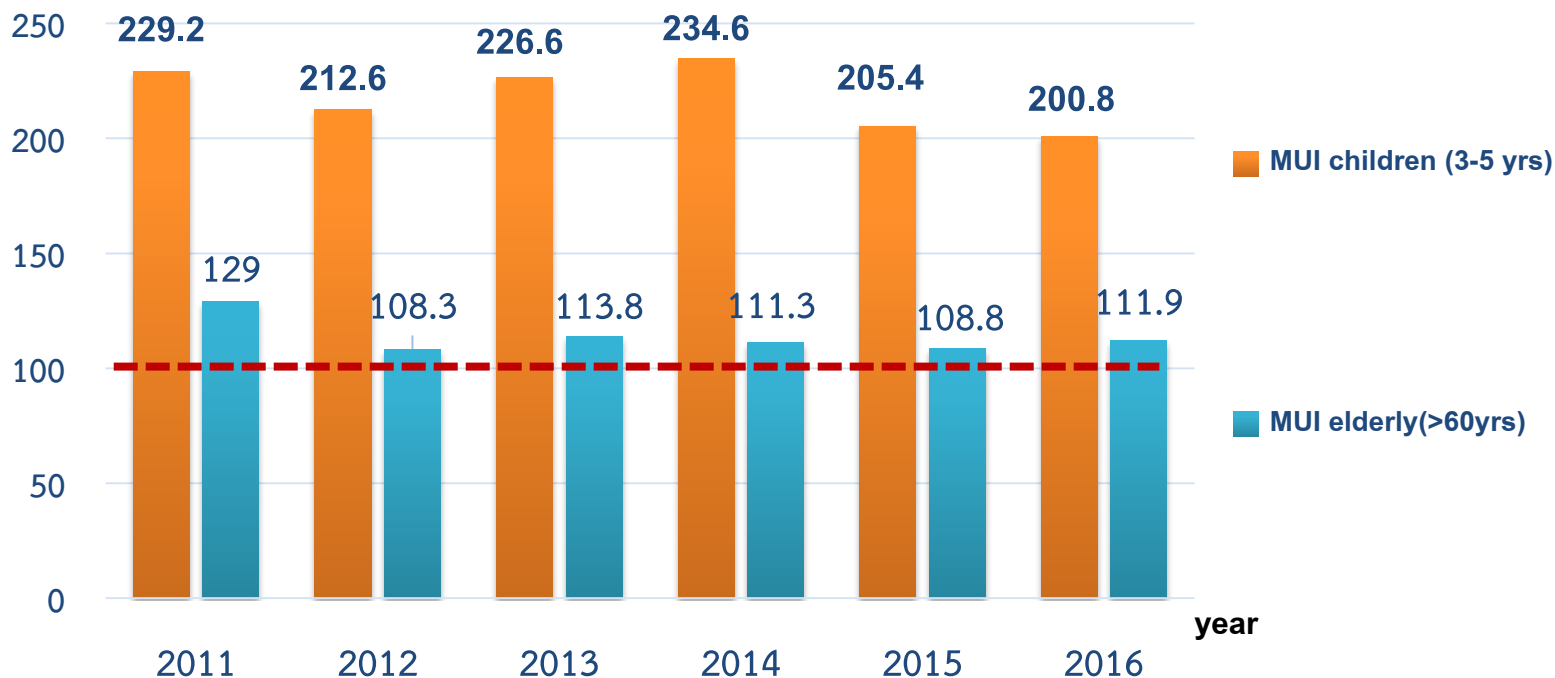


Surveillance System

■ Cyclical Monitoring (2011- 2016)

→ Preschool children & elderly group
(25 provinces/yr : 3 yrs interval)

Median Urine Iodine in 3-5 y children and elderly 2011-2016



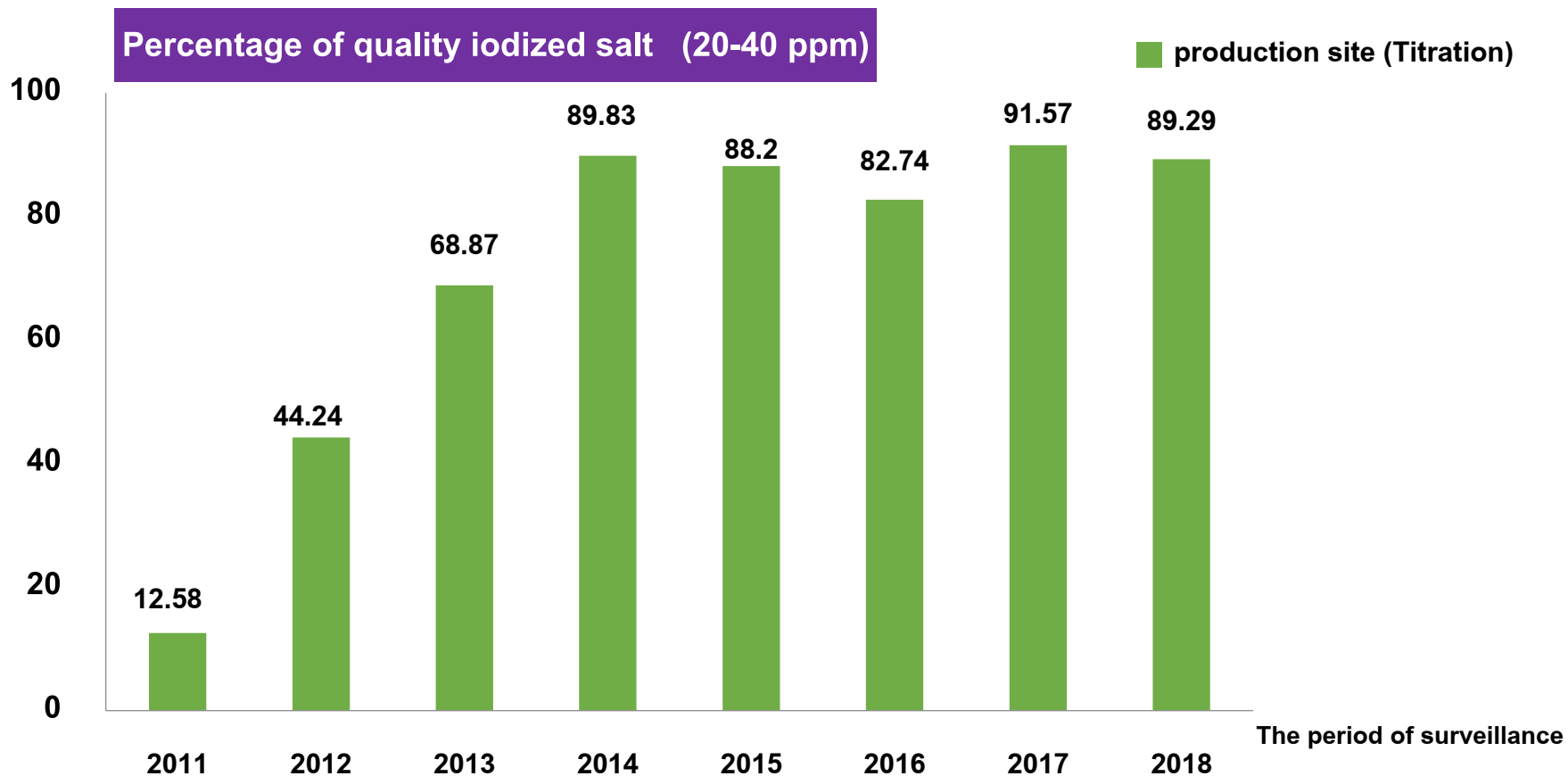


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Salt Monitoring

Iodized salt quality at production site

2011-2018



* production site : Thai Food and Drug Administration (Thai FDA)



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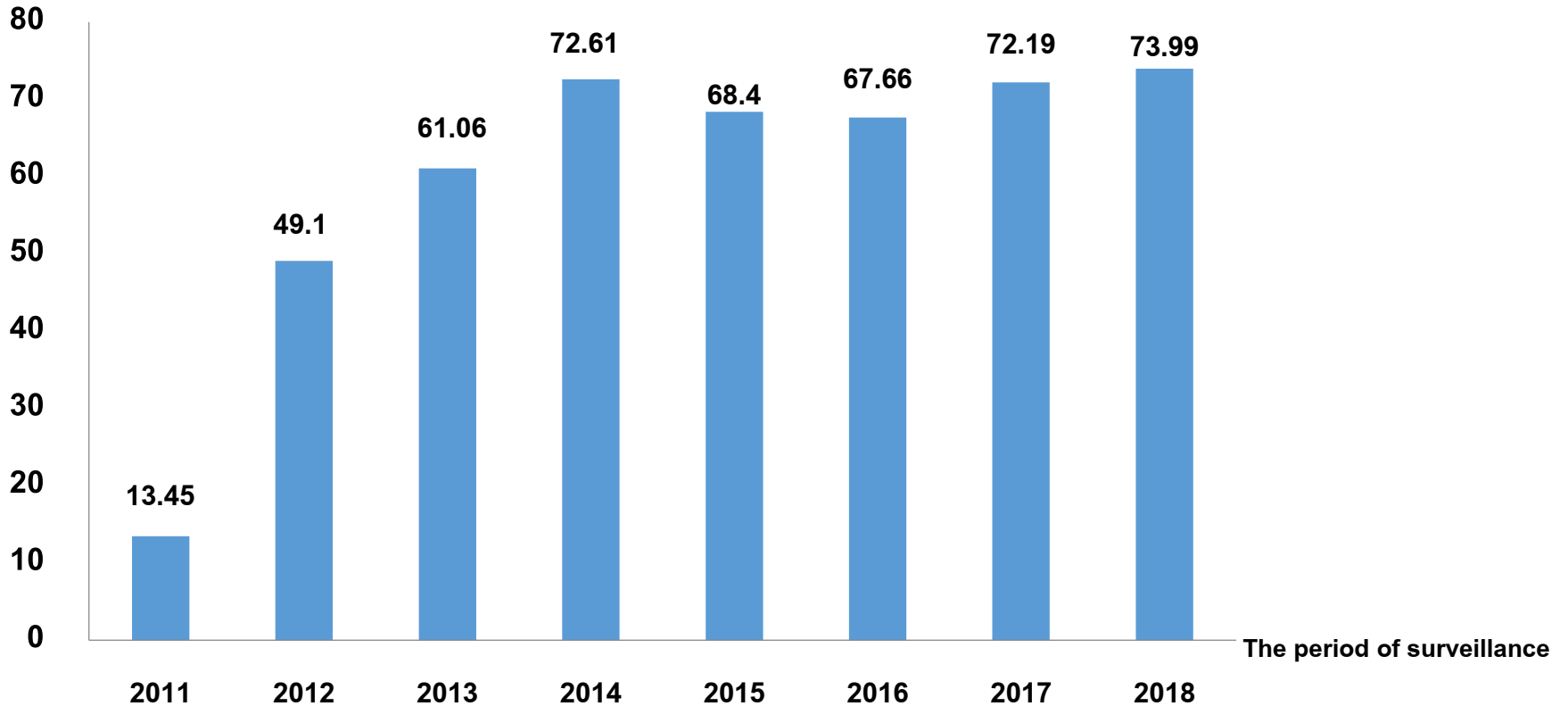
Salt Monitoring

Iodized salt quality at distribution site

2011-2018

Percentage of quality iodized salt (20-40 ppm)

■ distribution site (I-Reader)



* distribution site: Thai Food and Drug Administration (Thai FDA)

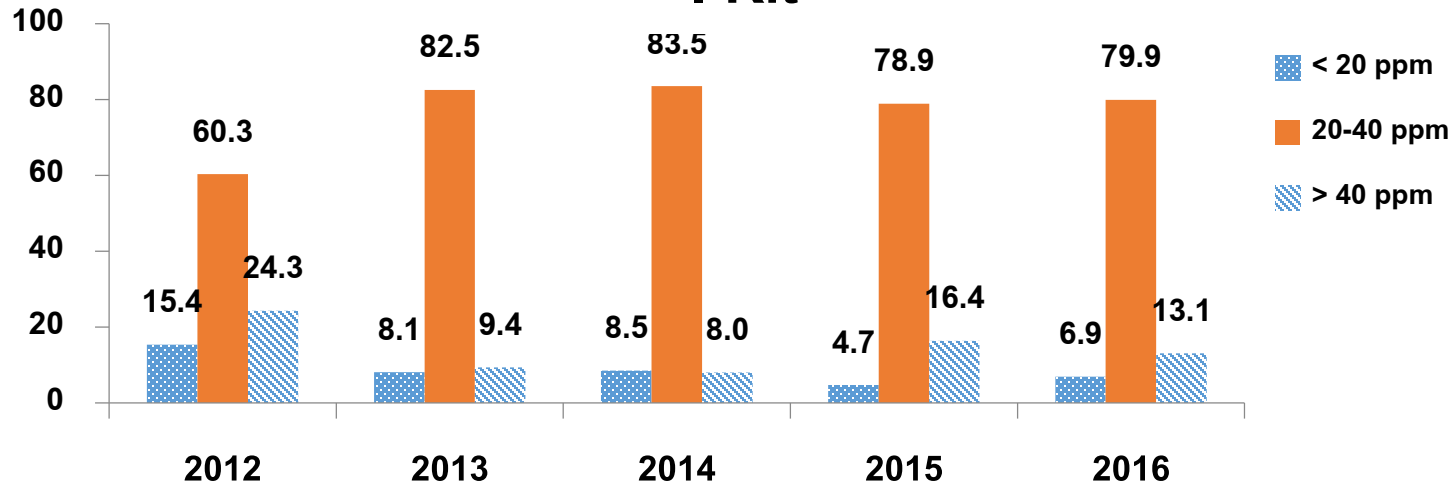


Salt Monitoring

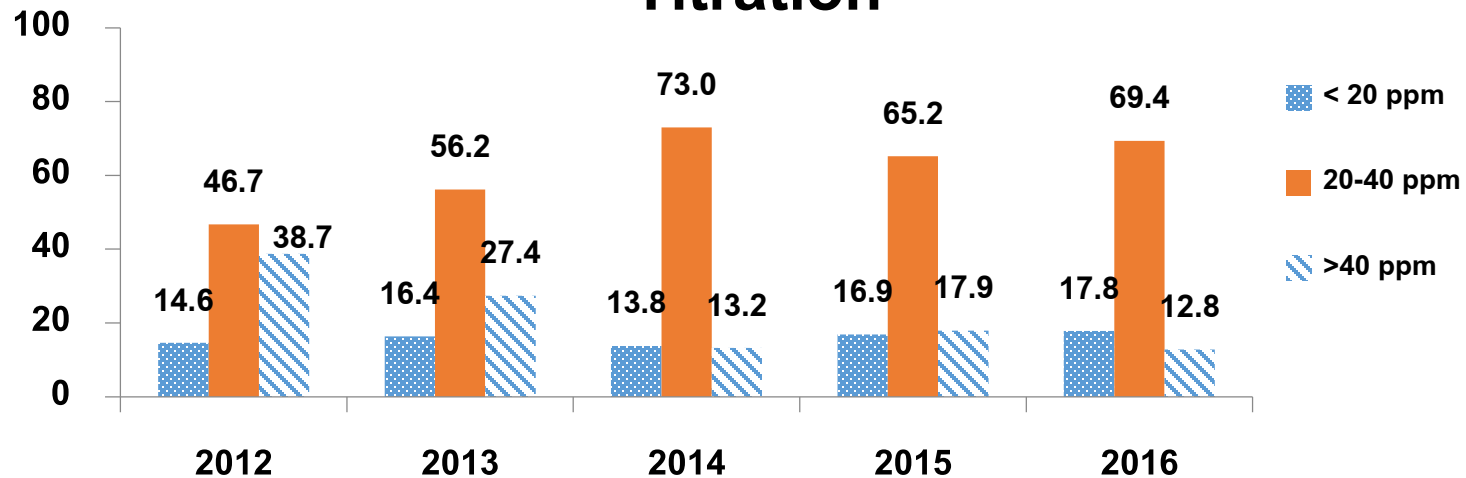
Iodized salt quality at household level 2012-2016

percentage

I-Kit



Titration





summary

- **Goitre Rate as the indicator for IDD Surveillance (1989-2003)**
- **Cyclical Monitoring of Urine Iodine (2000→ present)**
 - 2000 - present
 - pregnant women : monitor annually
 - 2011→ 2016
 - Preschool children & elderly group : 25 provinces/yr (3 yrs interval)
- **Iodized Salt Monitoring (2011- present)**
 - Household Coverage
 - Quality Monitoring
 - Factory
 - Food shop
 - House level



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THANK YOU

