

LTBI Management in Korea

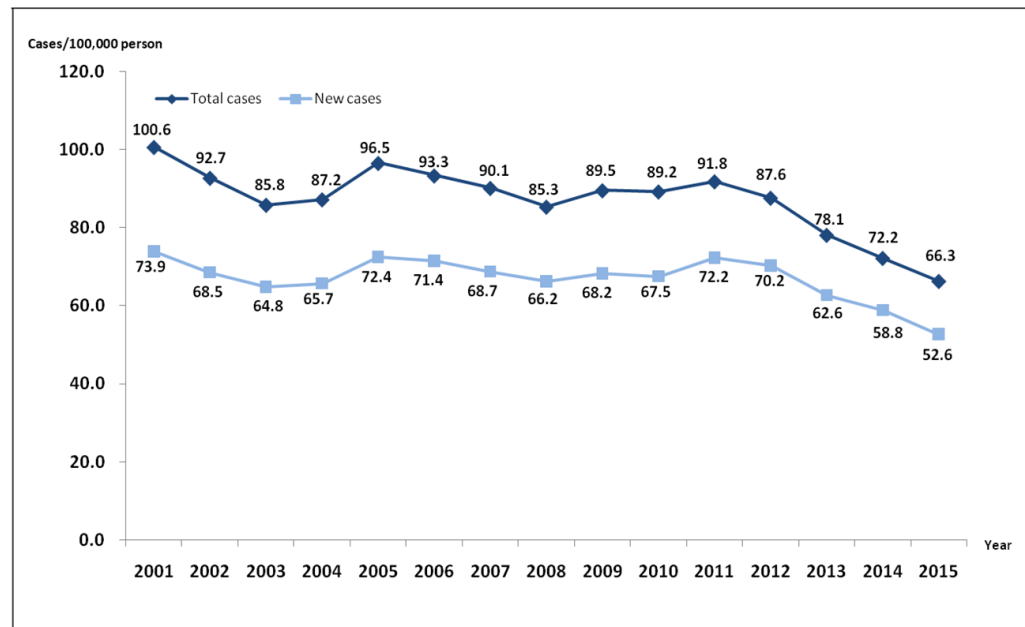
Progress, Challenges and The Way forward

Unyeong GO. MD. MPH, PhD

Korea Centers for Disease Control and Prevention

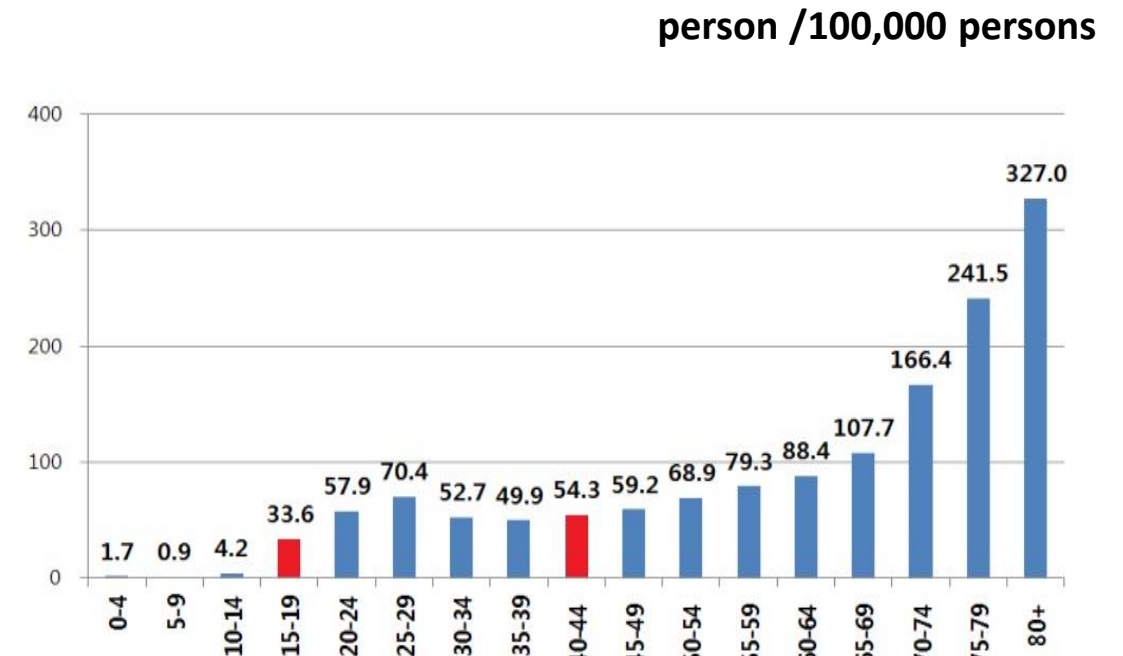
PROBLEMS

- Korea faces a considerable TB burden
- about 35,000 people falling ill with TB and 2,300 people dying of the disease each year



* Age-standardized case notification rate: The national population in 2005 was used as standard population (Source: the causes of death statistics in 2013, Statistics Korea)

[Figure 2] Age-standardized (new) TB notification rates, 2001-2015



New TB notification rates by age group, 2014. KCDC

SOLUTIONS

Recommendation form international consultation in 2011

1. Government commitment
2. Information system strengthening
3. Public-public and public-private links strengthening
4. Diagnosis and laboratory network strengthening
5. Treatment, care and patient support
6. Support for MDR-TB
7. Expansion of management programme for Vulnerable and high risk groups (contacts, immigrants, prisoners, etc...)
8. Research

▶ 「The 1st National TB Control Plan (2013–2017)」

- TB Elimination Vision, Goal, and Strategies

Vision

TB Free Society, Healthy Country

Goal

50% reduction in TB Incidence by 2020

Strategies

Strategy 01

Early detection of TB patients

- Expanded screening of vulnerable or high-risk groups
- Strengthening of TB surveillance
- Prevention of TB among foreigners

Strategy 02

Comprehensive TB patient management

- Patient treatment and support
- Intensive care for infectious TB patients
- Strengthening Latent TB Infection (LTBI) treatment

Strategy 03

Enhancement of the infrastructure for TB Control

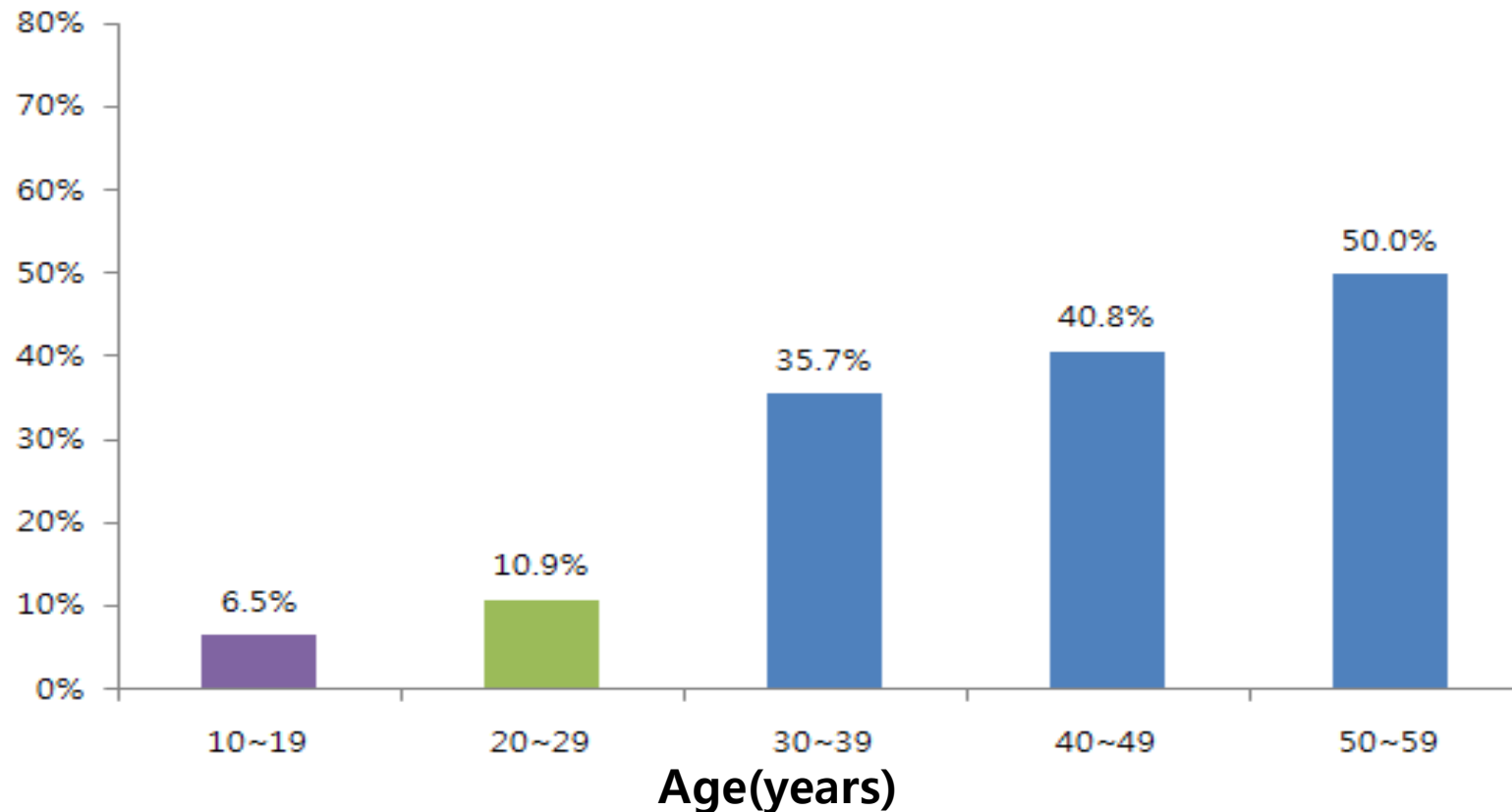
- Improvement of institutional system laws
- Enhancement of TB awareness and national promotion for behavioral change
- Enhancement of TB information management

※ Legal Base: Tuberculosis Prevention Act (Article 5)

※ Local Governments in Korea: establishing and executing the local TB control plan under the Tuberculosis Prevention Act

LTBI Management – background

Prevalence of TB Infection (2015)

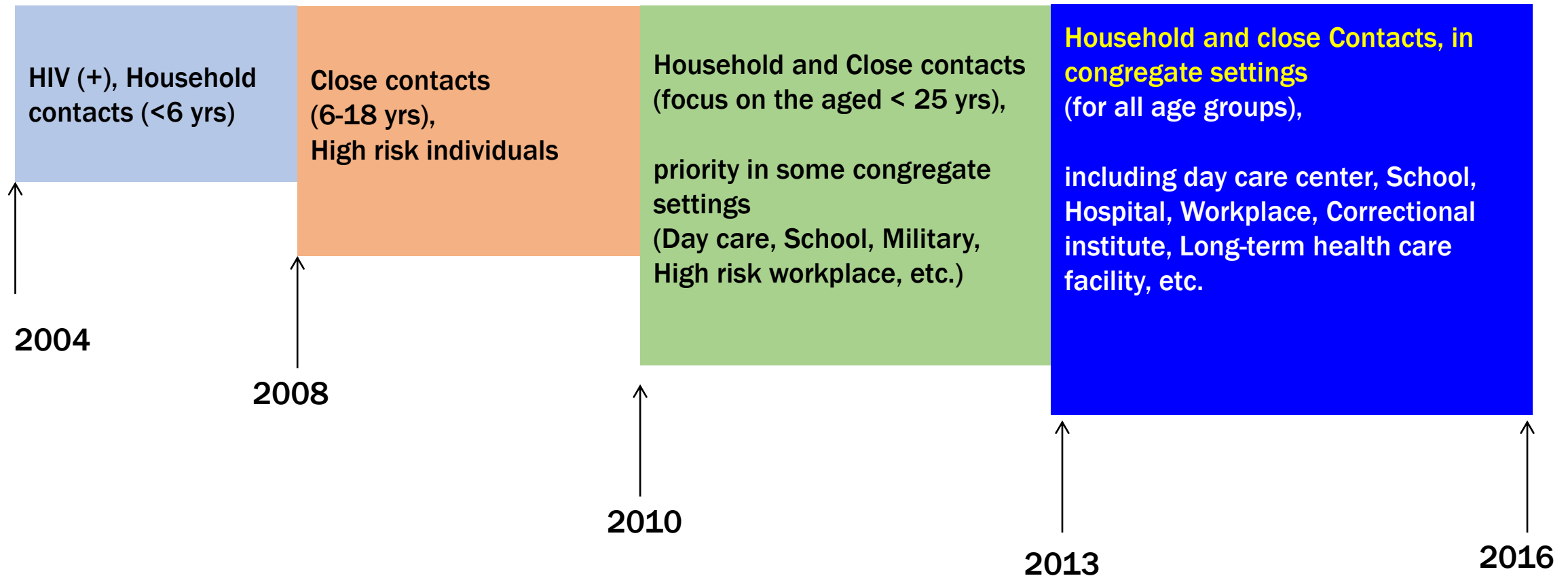


[Source: Korea National Health and Nutrition Examination Survey, 2015]

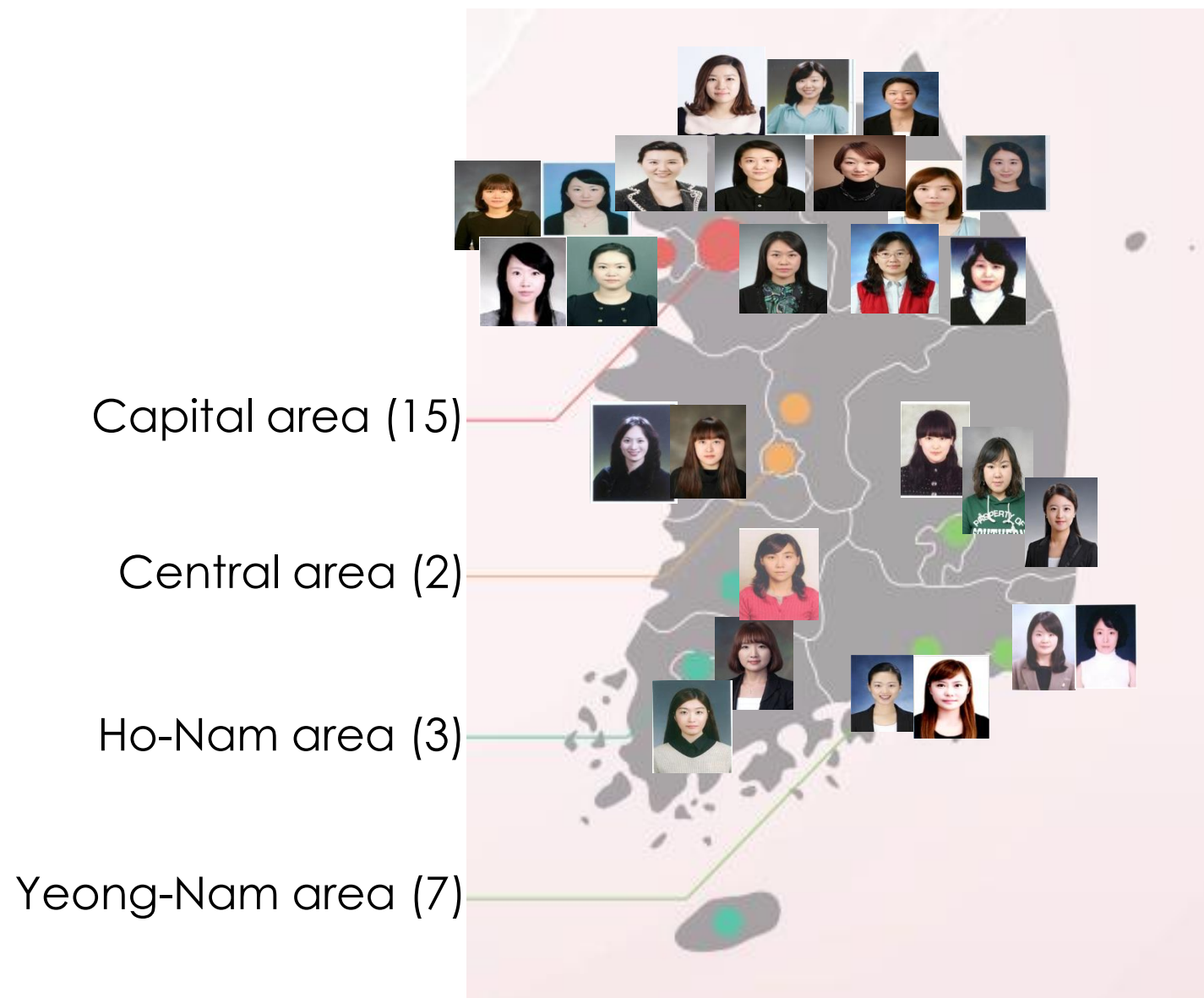
PROGRESS

Expansion of targets for contact examination

*Korea CDC Guidelines



Korea TB Epidemic Investigation Service; KTEIS



- 27 field investigators of KCDC arranged across country
- to support and implement contact investigation performed since 2013

Investigation Response Vehicle

- Rapid contact investigation by operation of investigation response vehicles



Contact Investigation(CI) in Household contacts

Household contacts of AFB(+) index cases (2015)

- No. of total contacts : 16,135
- No of contacts tested : 15,754
- LTBI testing Rate : 97.6%
- No of LTBI diagnosed : 1,710
- Rate of LTBI(%) : 11%
- No of new cases : 130
- % of TB cases detected : 0.8%

Contact Investigation in Congregate Settings

Year	No. of Investigation	No. of Contacts	No. of Cases detected	No. of Latent TB infection
2013	1,200	149,071	259	14,286 (9.6%)
2014	1,500	143,546	351	11,930 (8.3%)
2015	2,821	130,451	336	12,723 (9.8%)

Contact Investigation in Day-care centers

- Index TB cases in Day-care

Year	No. of Total institutions	No. of institutions TB detected	No. of TB cases	Proportion of <u>staff cases</u> among TB cases
2015	52,326	91 (0.2%)	91	87 (95.6%)

- Results of Contact Investigation

Year	No. of CI	No. of Contacts investigated	No. of Cases found	No. of Latent TB infection (%)
2015	42	2,136	0	217 (10.2%)

Contact Investigation in Schools (1)

(Elementary to high schools)

Year	Total			
	No. of CI	No. of Contacts investigated	No. of cases found	LTBI (%)
2013	426	93,930	110	7,180 (7.6%)
2014	407	75,353	58	5,378 (7.1%)
2015	349	53,227	69	3,415 (6.4%)

Contact Investigation in Schools (2)

(Elementary to high schools)

No of schools with TB cases

Year	Total			Elementary School			Middle School			High School		
	No. of total school	No. of School detected TB	%	No. of total school	No. of School detected TB	%	No. of total school	No. of School detected TB	%	No. of total school	No. of School detected TB	%
2015	11,526	836	7.3	5,978	139	2.3	3,204	192	6.0	2,344	505	21.5

Proportion of Student cases among index TB cases in Schools

Year	Total	Elementary School	Middle School	High School
2015	770 (79.1%)	41 (29.1%)	178 (80.2%)	551 (90.2%)

Latent TB Infection treatment (2013-2014)

- **Completion rate of treatment by regimens (aged < 35 years)**

Regimens	To initiate TX.	To complete TX.	Completion Rate
Total	10,822	8,985	83.0%
3HR	3,157	2,791	88.4%
4R	930	820	88.2%
9H	6,735	5,374	79.8%

* LTBI aged < 35 years : Initiation rate of treatment 75.9% among 14,267 persons

CHALLENGES

- To Improve LTBI treatment adherence and completeness
 - **Shorter duration of treatment**
 - Monitoring adverse drug reactions
 - Education and public relation against stigma
- To communicate with all personnel (parents, employee, staffs, etc) to minimize **misinformation and anxiety**
- To Keep the **quality management of contact investigation**

THE WAY FORWARD

1. Legal framework require TB and LTBI screening among ;

- Health care workers
- Workers in maternity units
- Teachers in educational institutions

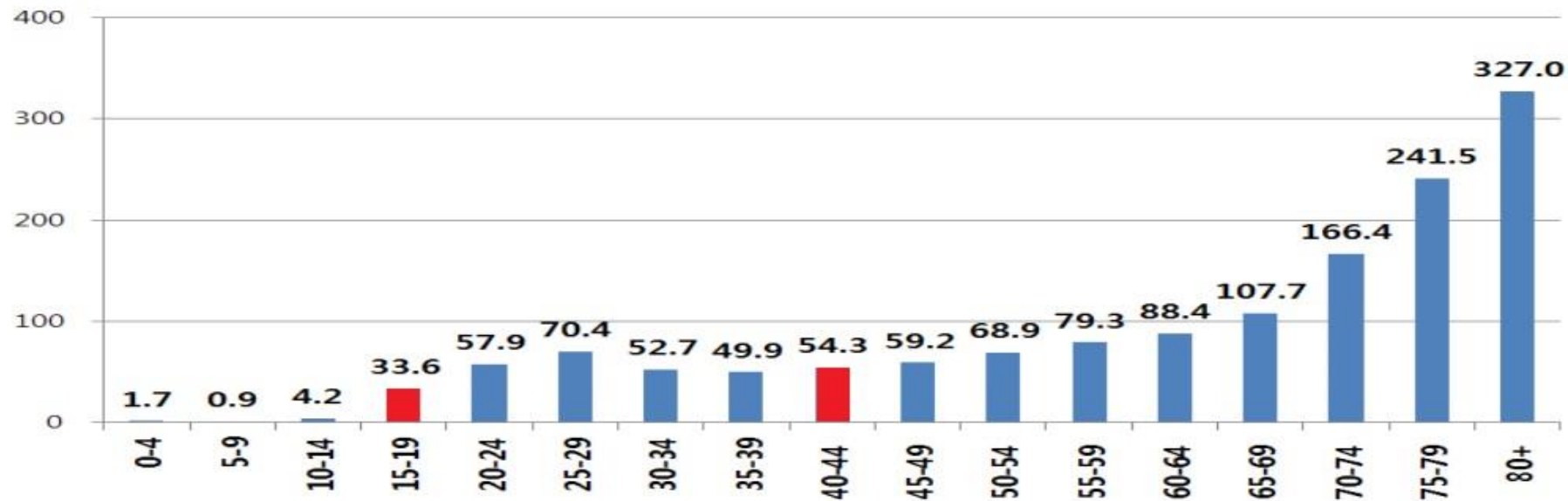
(including daycare center, preschools, schools)

(Tuberculosis Prevention Act, Article 11, implementation will start from August 2016)

(LTBI screening for newly employed workers and teachers)

2. LTBI examinations incorporation with existing TB screening programme at 15 years old and 40 years old

person /100,000 persons



3. Strengthening of recommendation for high risk group including diabetics and smokers

4. Reinforce TB examinations for elderly

- Patients more than 65 years of age accounted for 35% of the total new TB cases
- **Strengthening of TB examinations** in institutions and high risk areas
 - ✓ Strengthen "mobile checkup" in community settings
 - ✓ Strengthen medical examination at sanatoriums and senior welfare centers

* TB cases in sanatoriums and senior welfare centers : 382 new TB cases, 197 investigations (As of Sep 2015)

* The elderly (65 years and over) have a low TB screening rate : 61%

(2014 medical examination inspection rate : 20~30s : 83% , 40~ 60s : 74%, 60s plus : 61%)

5. Managing patients and support

- **Supporting** management and treatment **for LTBI**
 - Free treatment (Since July 2015)
 - Strengthen application & management
 - ✓ Register the results of the LTBI test and treatment records
 - ✓ Development of **registration system** (1st half 2016)

LESSONS LEARNED

1. **Political commitment** is important
2. **Contact investigation** is basis for LTBI management programme
3. **TB Contact Investigation Team** is unique in Korea, and defined vulnerable groups
4. **Support for cost of examination and treatment** facilitates the implementation of LTBI programme
5. Need **research and development** for (1) better diagnosis and treatment, (2) programme operation
6. Importance of **communication** with public

Thank you !