

# PPM 의료기관 환자관리 지표 분석



민간공공협력 국가결핵관리 사업단, 중앙위원  
인제대학교 일산백병원 이성순



대한결핵 및 호흡기학회



질병관리본부

# 용어 정의

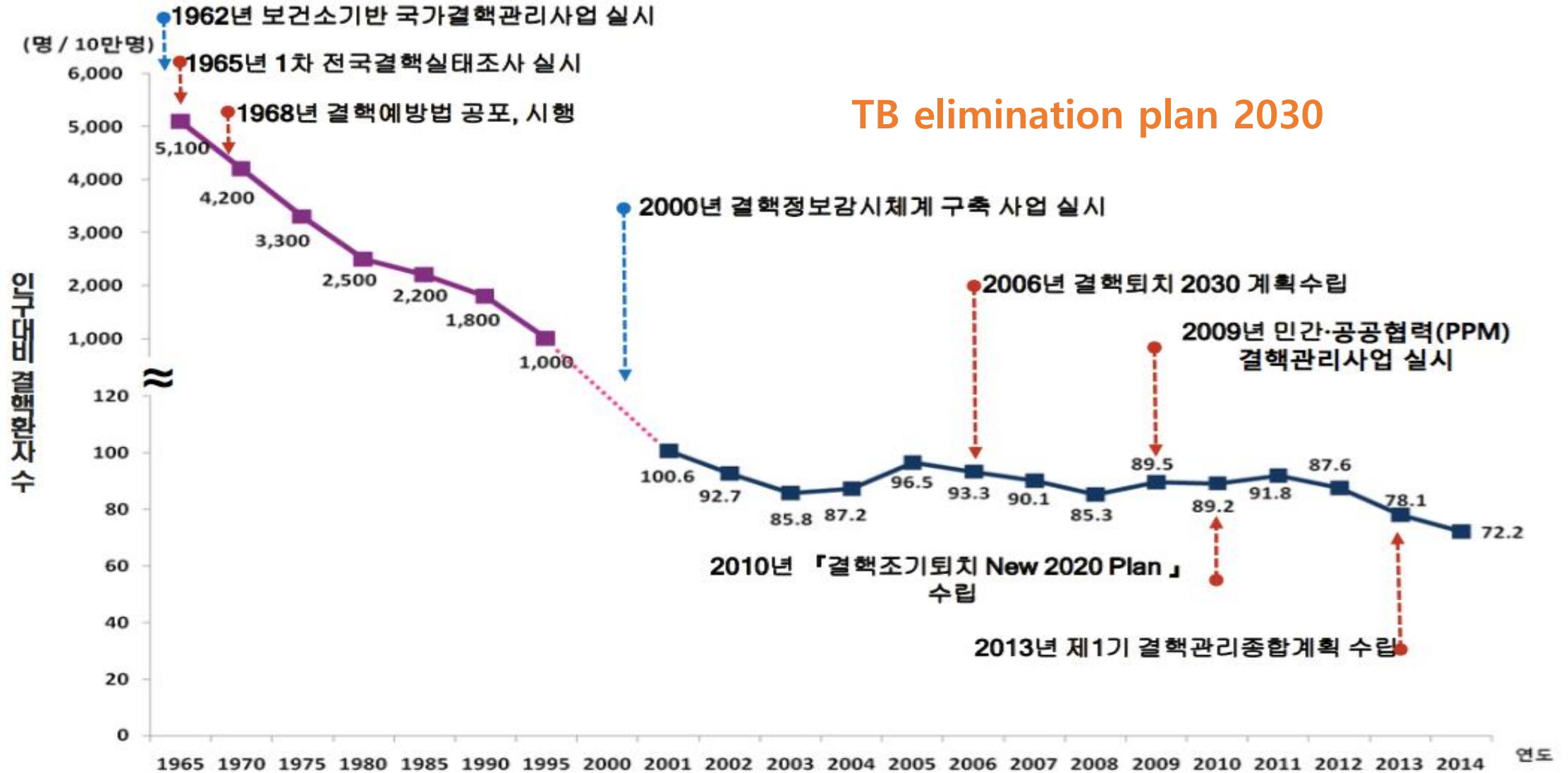
- 유병율(Prevalence) ; 역학조사를 통하여 한 시점의 질병 빈도
- 발생율(Incidence) : 일정 기간 동안 새로 발병한 질병의 빈도
- 신고율(Notification rate) : 질병의 발생 신고 기준

# PPM 의료기관의 지표 분석

1. 2016 결핵 현황

2. PPM 병원 환자관리 지표 분석

# South Korea TB Incidence rate / 100,000



※ [출처] 1965년~1995년(제1차-제7차 결핵실태조사) , 2001년~2014년(2014년 결핵환자 신고현황 연보)  
 ※ 2014년 인구 연령 표준화

# 제6차 전국결핵실태조사 결과

REPORT ON  
THE 6th TUBERCULOSIS PREVALENCE SURVEY  
IN KOREA

1990



보건사회부·대한결핵협회

표 8. 연령군별 엑스선상 활동성 폐결핵 유병률

Table 8. Prevalence of radiologically active tuberculosis by age group in 1990, 1985, 1980, 1975, 1970 and 1965(%)

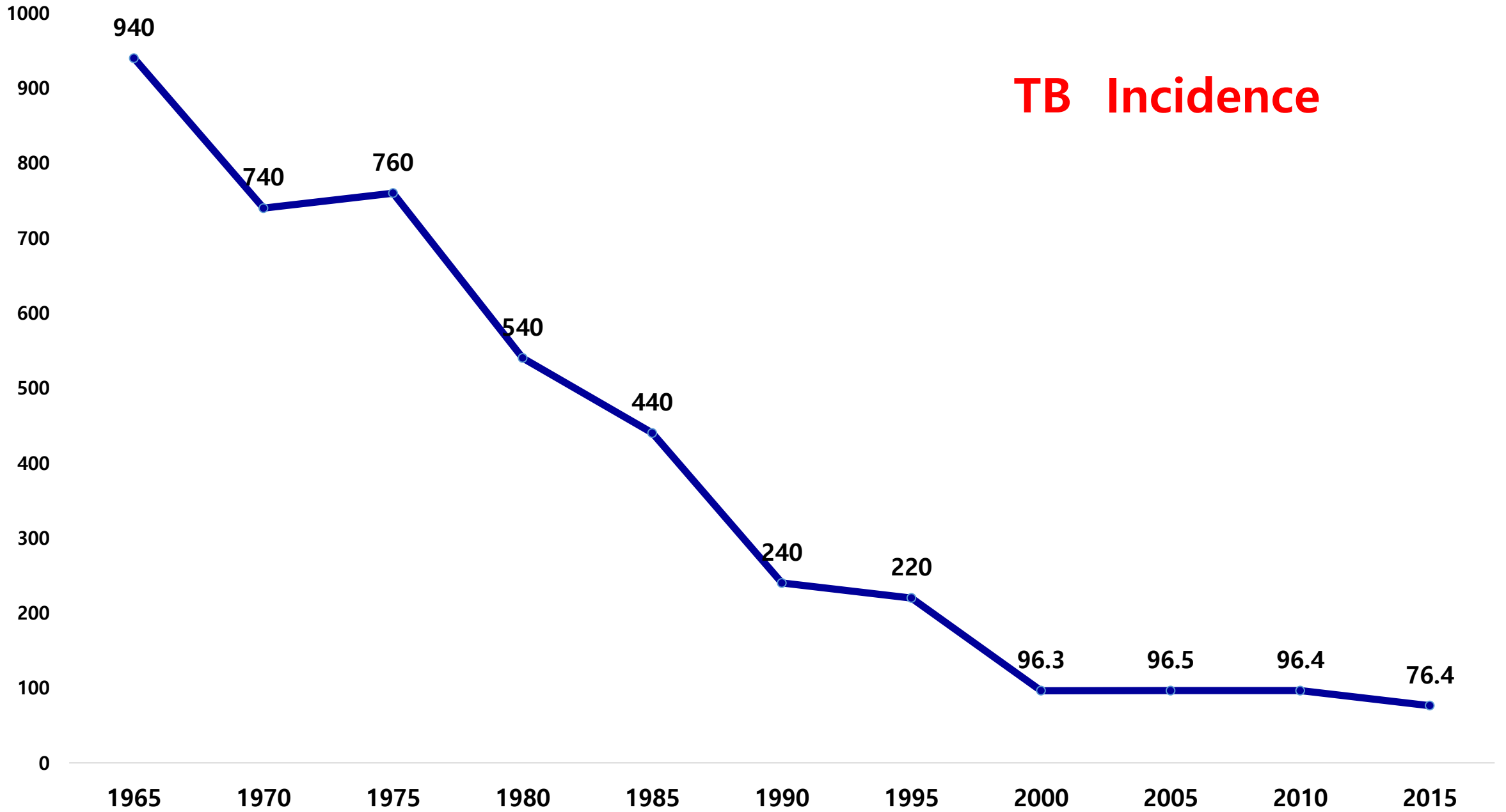
Age group (years)	Radiologically active pulmonary tuberculosis										1985	1980	1975	1970	1965
	1990														
	No. examined	Whole country			Urban			Rural							
		Total	Male	Female	Total	Male	Female	Total	Male	Female					
Total	48,976	1.8	2.5	1.3	1.6	1.9	1.3	2.4	3.7	1.3	2.2	2.5	3.3	4.2	5.1

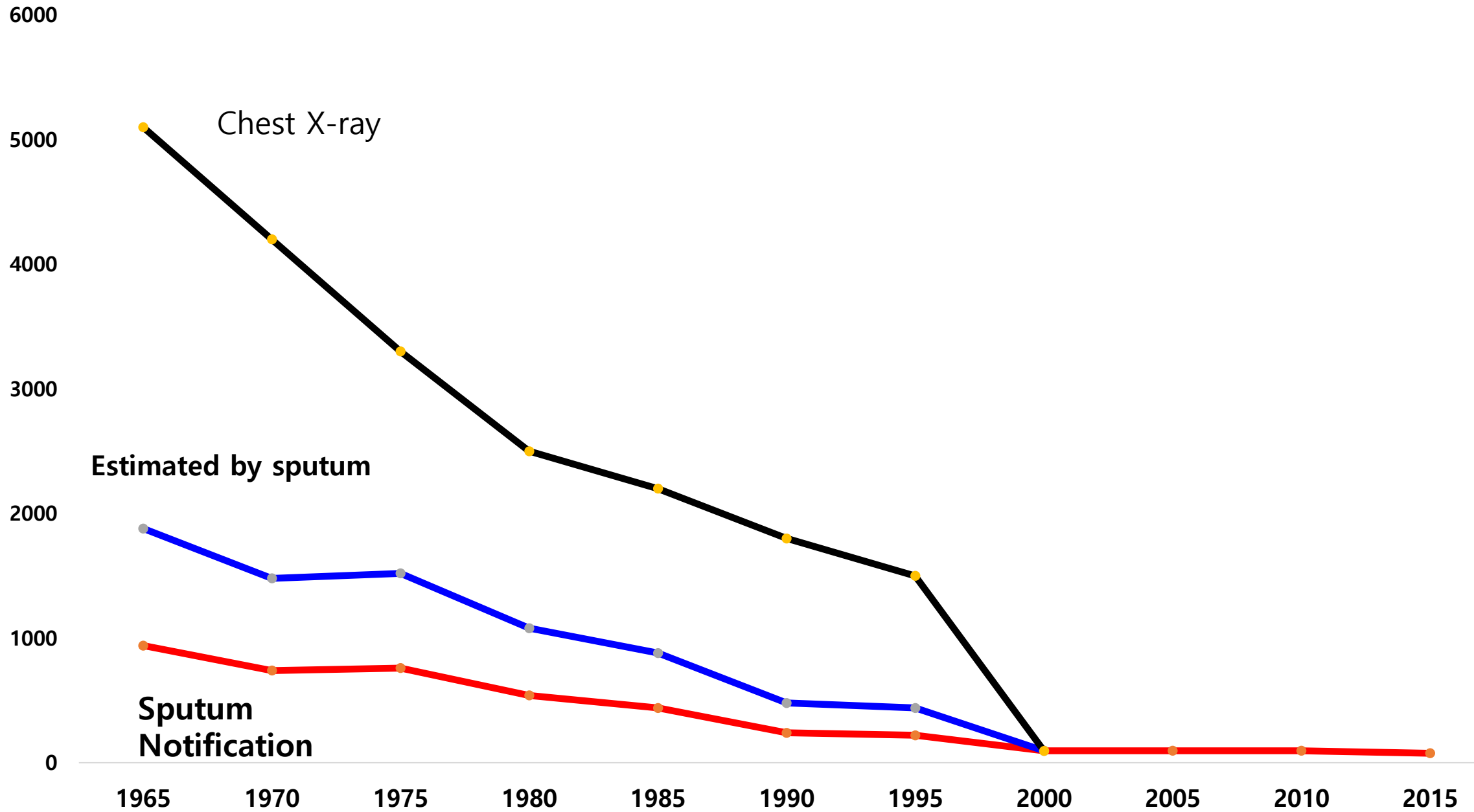
표 12. 연령군별 균양성 폐결핵 유병률

Table 12. Prevalence of bacteriologically confirmed tuberculosis by age group in 1990, 1985, 1980, 1975, 1970 and 1965(%)

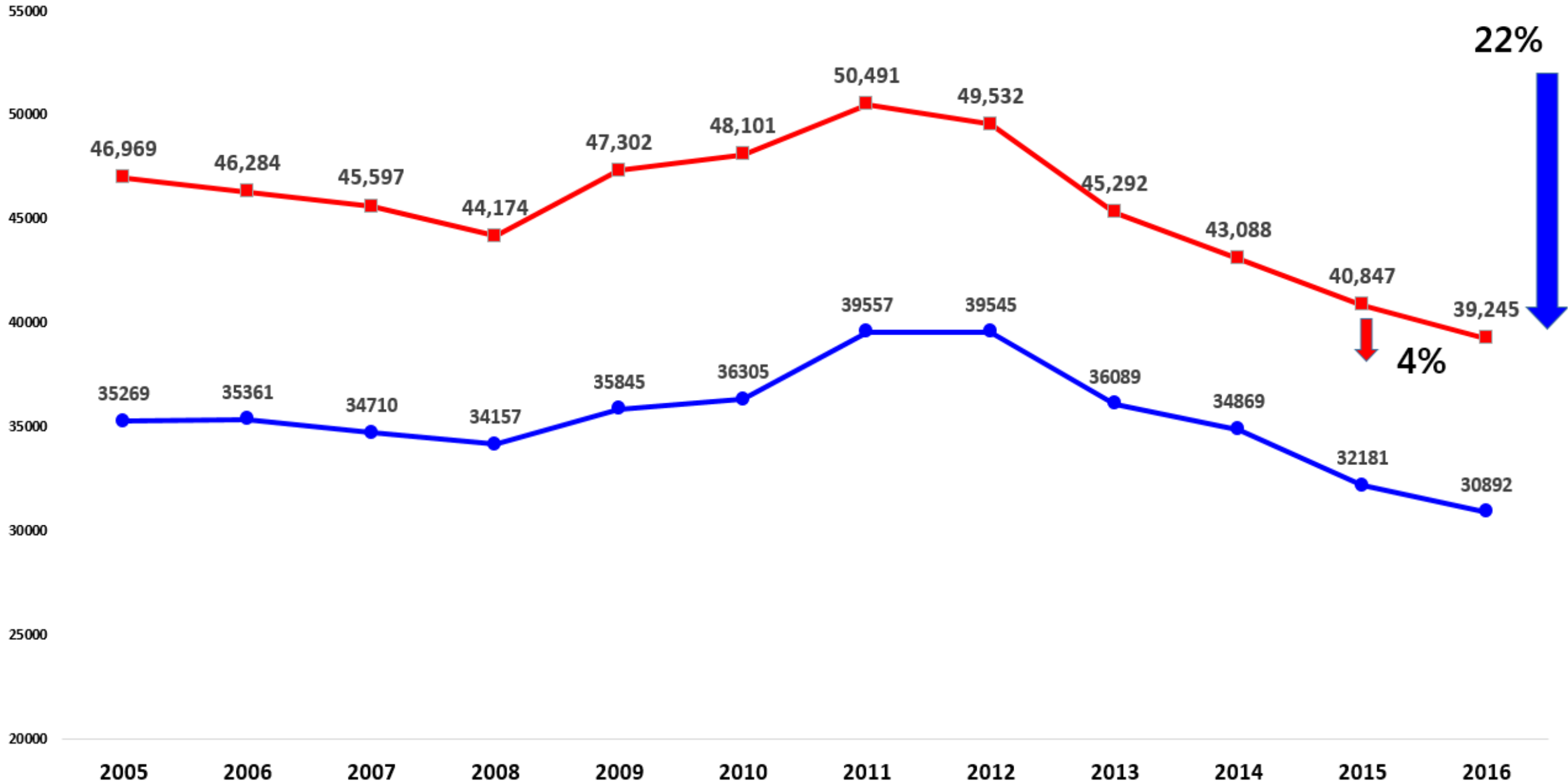
Age group (years)	No. X-rayed	1990						1985	1980	1975	1970	1965
		No. X-ray suspects	Whole country			Urban	Rural					
			Total	Male	Female							
Total	48,976	894*	0.24	0.36	0.13	0.19	0.35	0.44	0.54	0.76	0.74	0.94

# TB Incidence



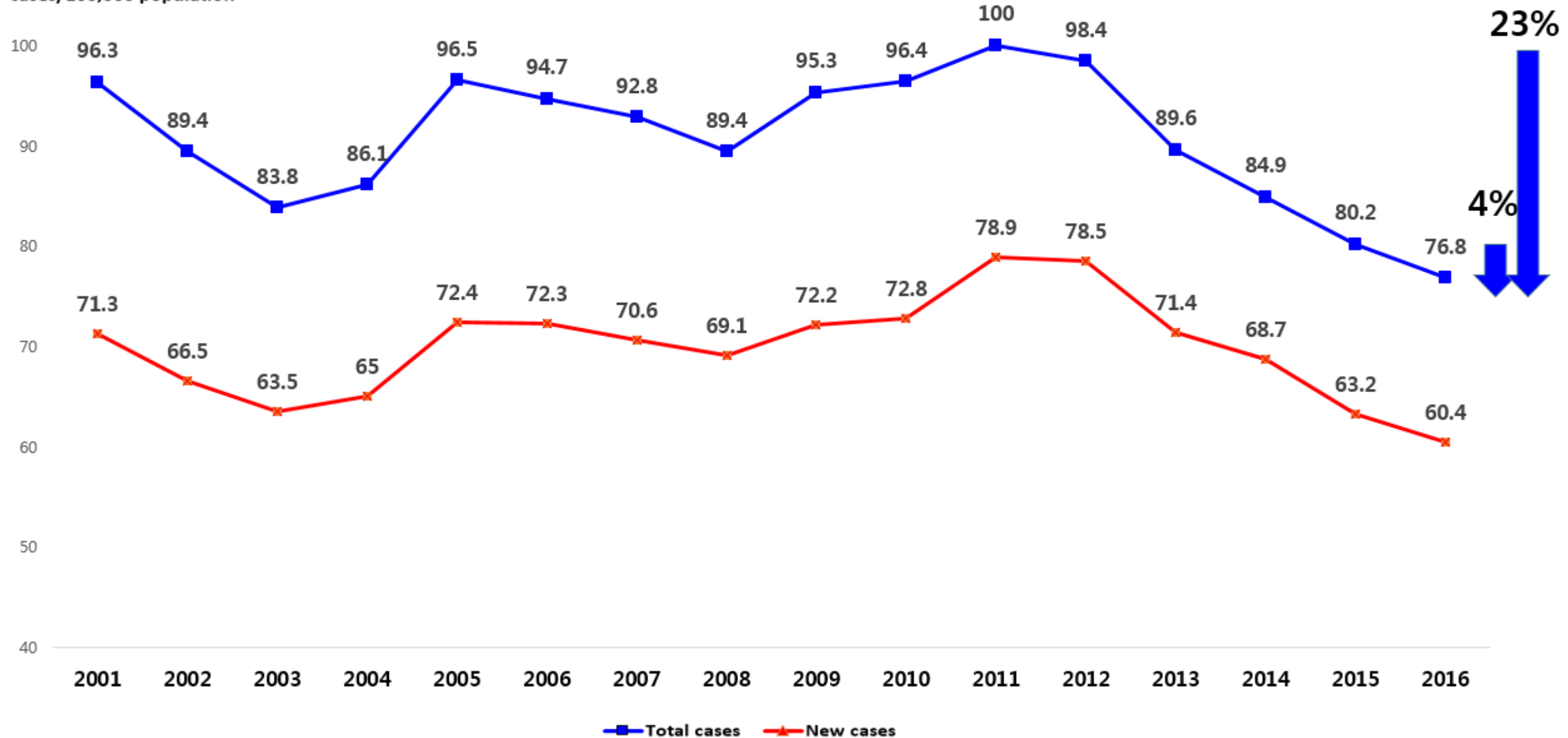


# Total and New tuberculosis Cases, South Korea, 2001-2016



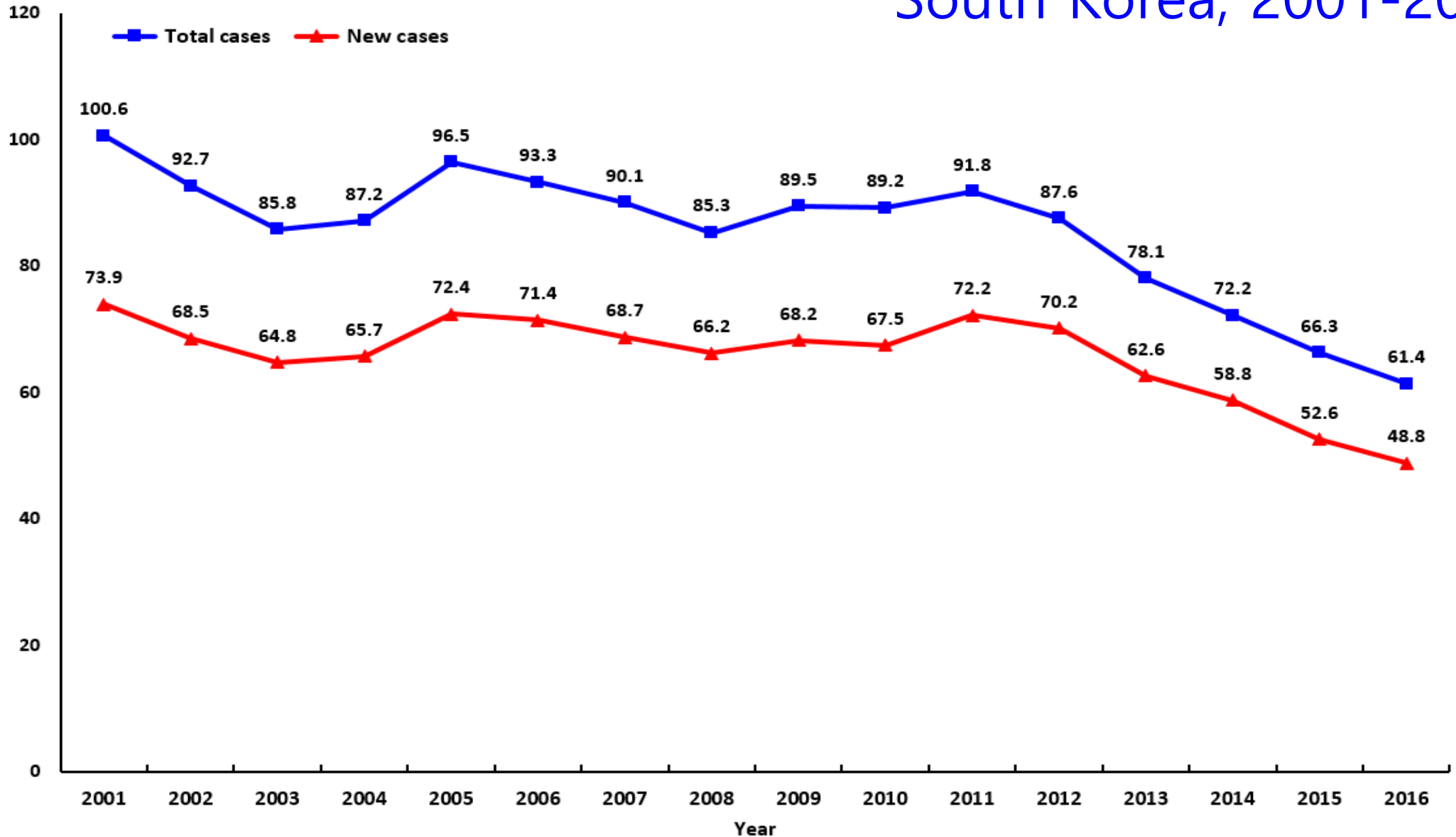
# Total and **New** Tuberculosis Rates, South Korea, 2001-2016

cases/100,000 population



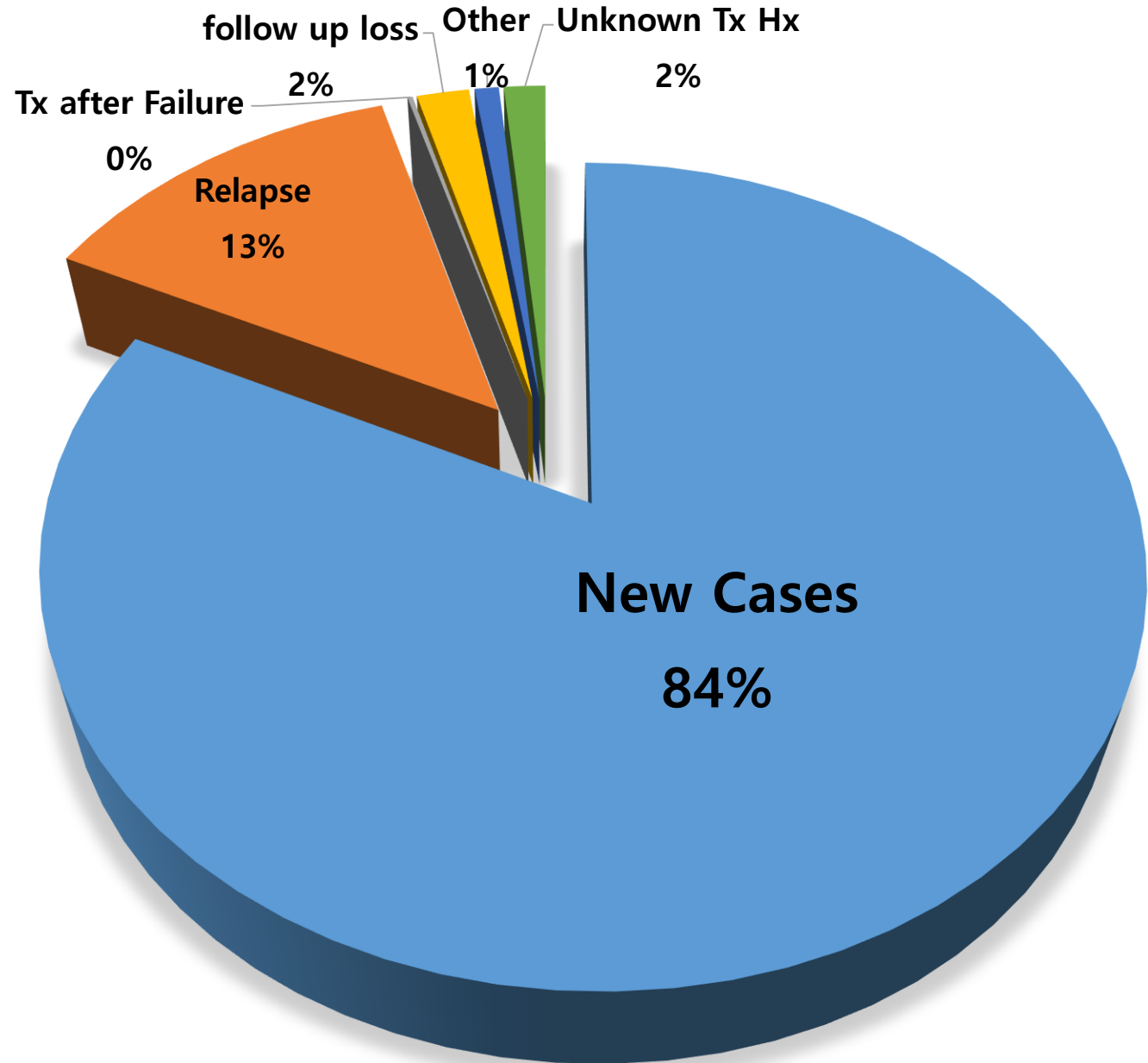
cases/100,000 persons

# Age-standardized total and new tuberculosis rates, South Korea, 2001-2016

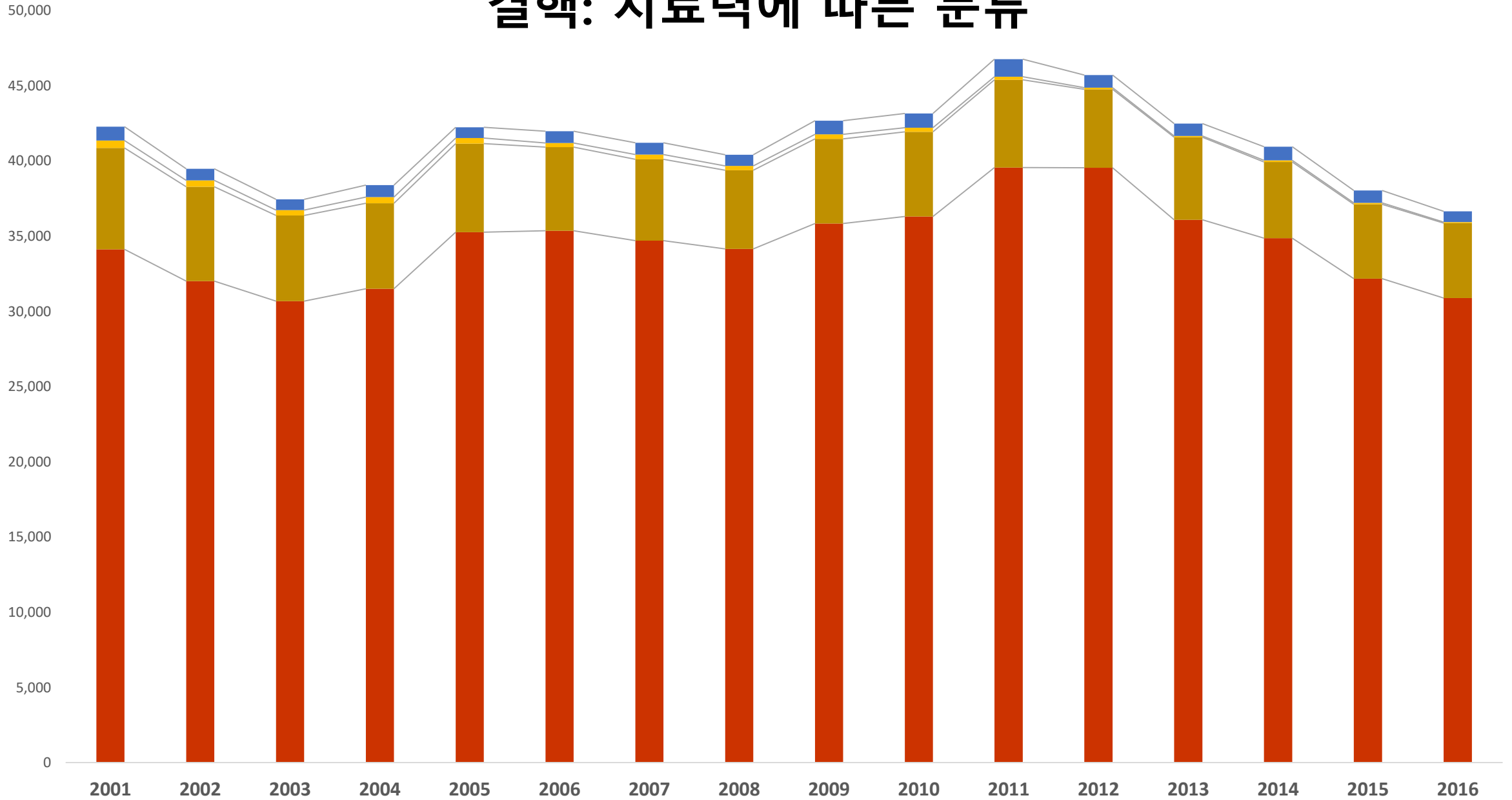


**TB cases classified  
by treatment history  
2001-2016**

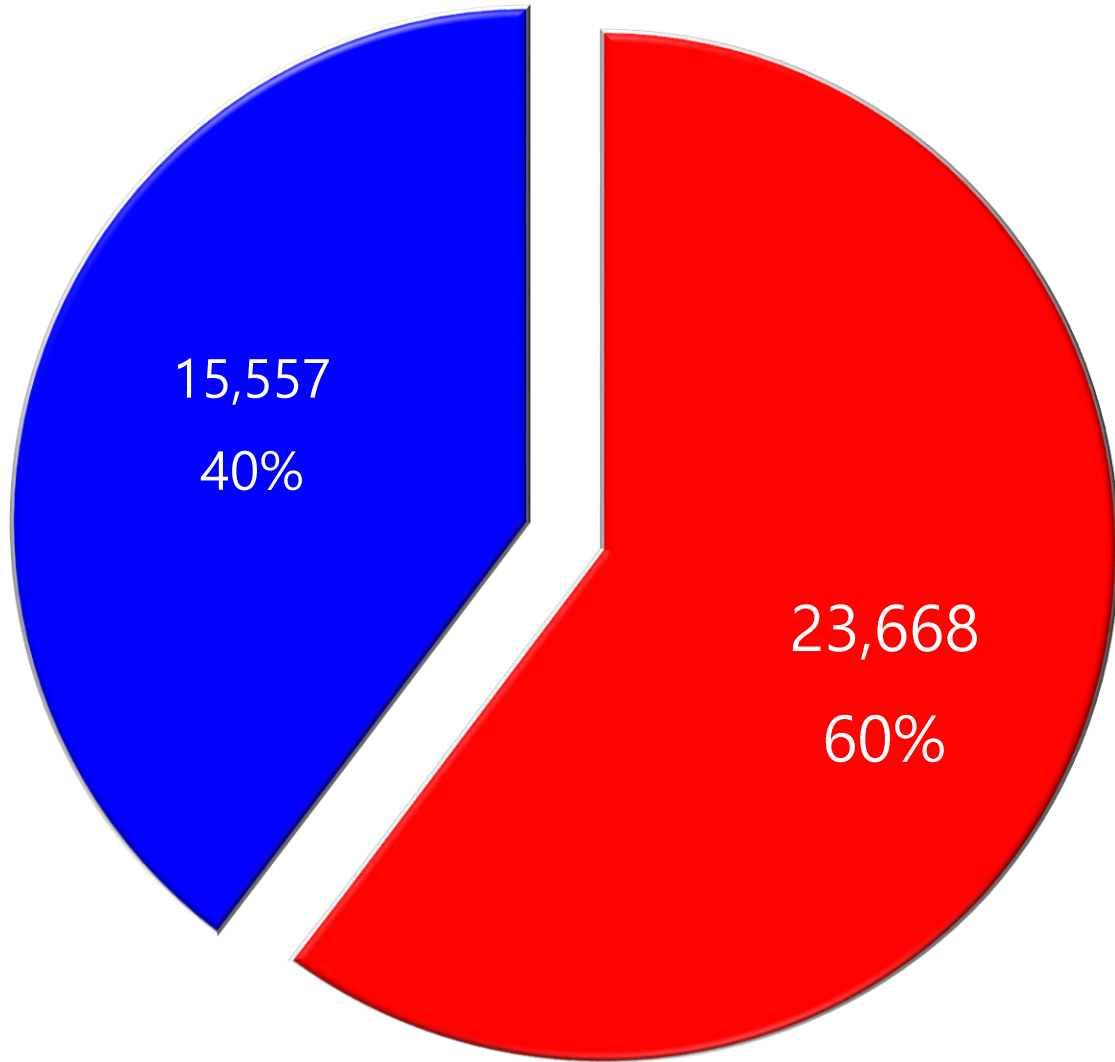
TB cases  
Classified by  
Treatment  
History, 2016



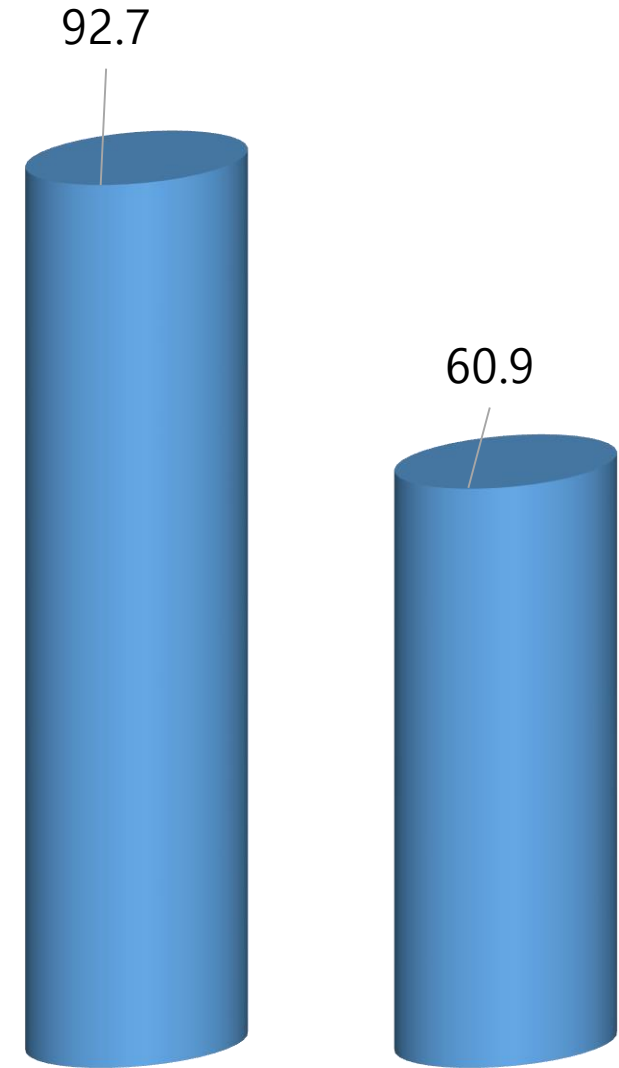
# 결핵: 치료력에 따른 분류



New TB cases rate  
by **Age** and **gender**  
2001-2016



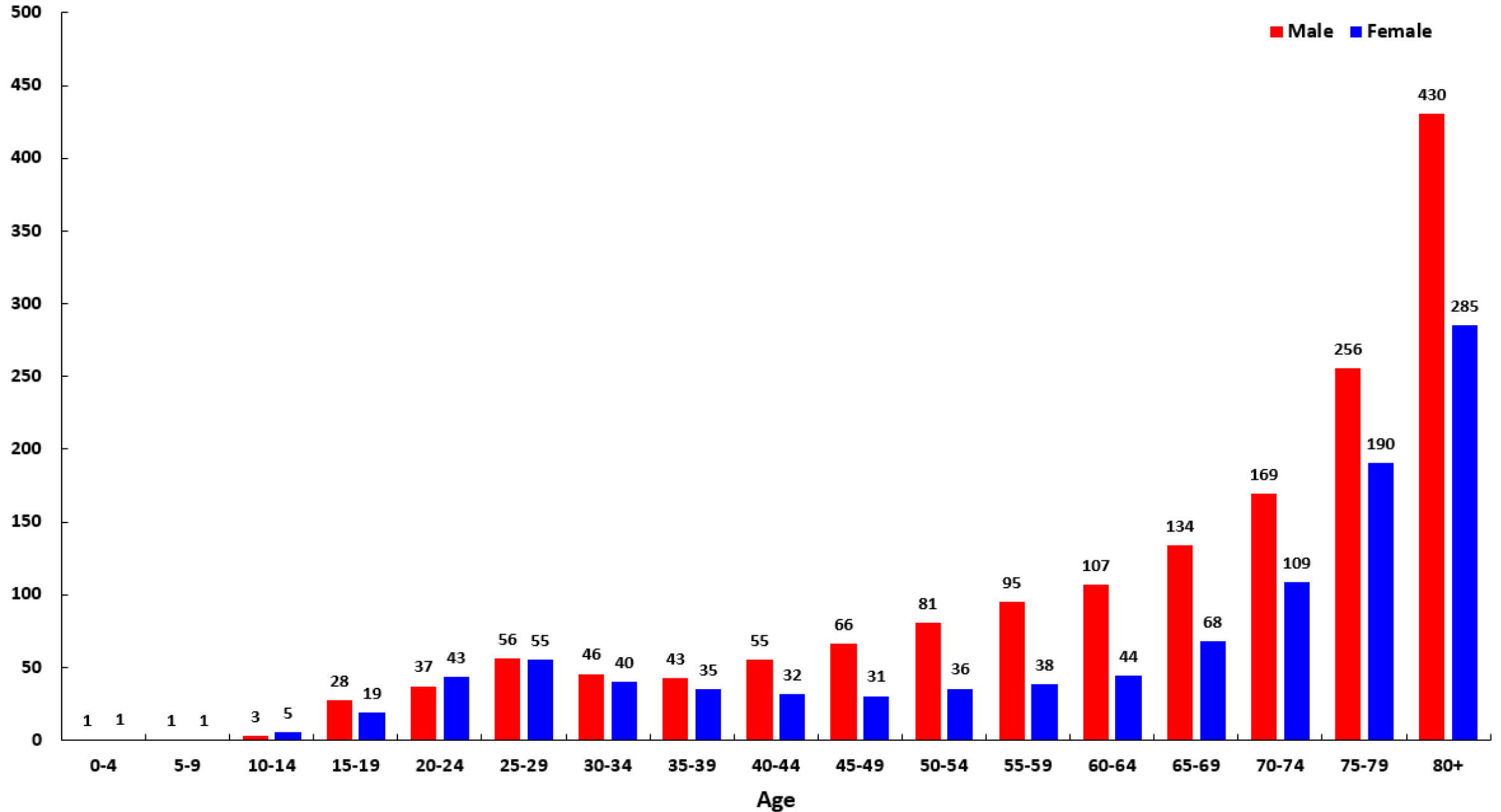
■ 남자 ■ 여자 ■ ■



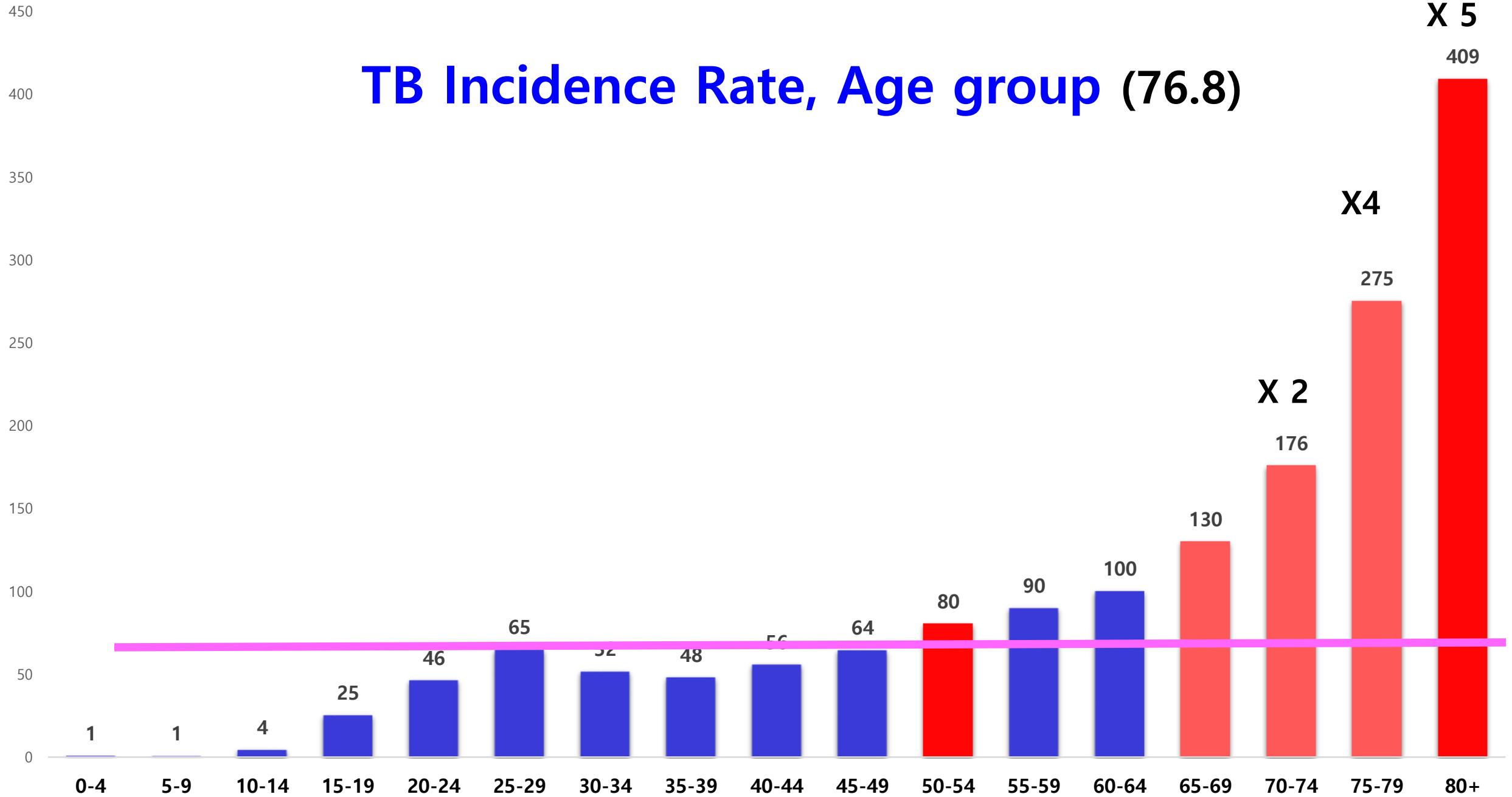
남자

여자

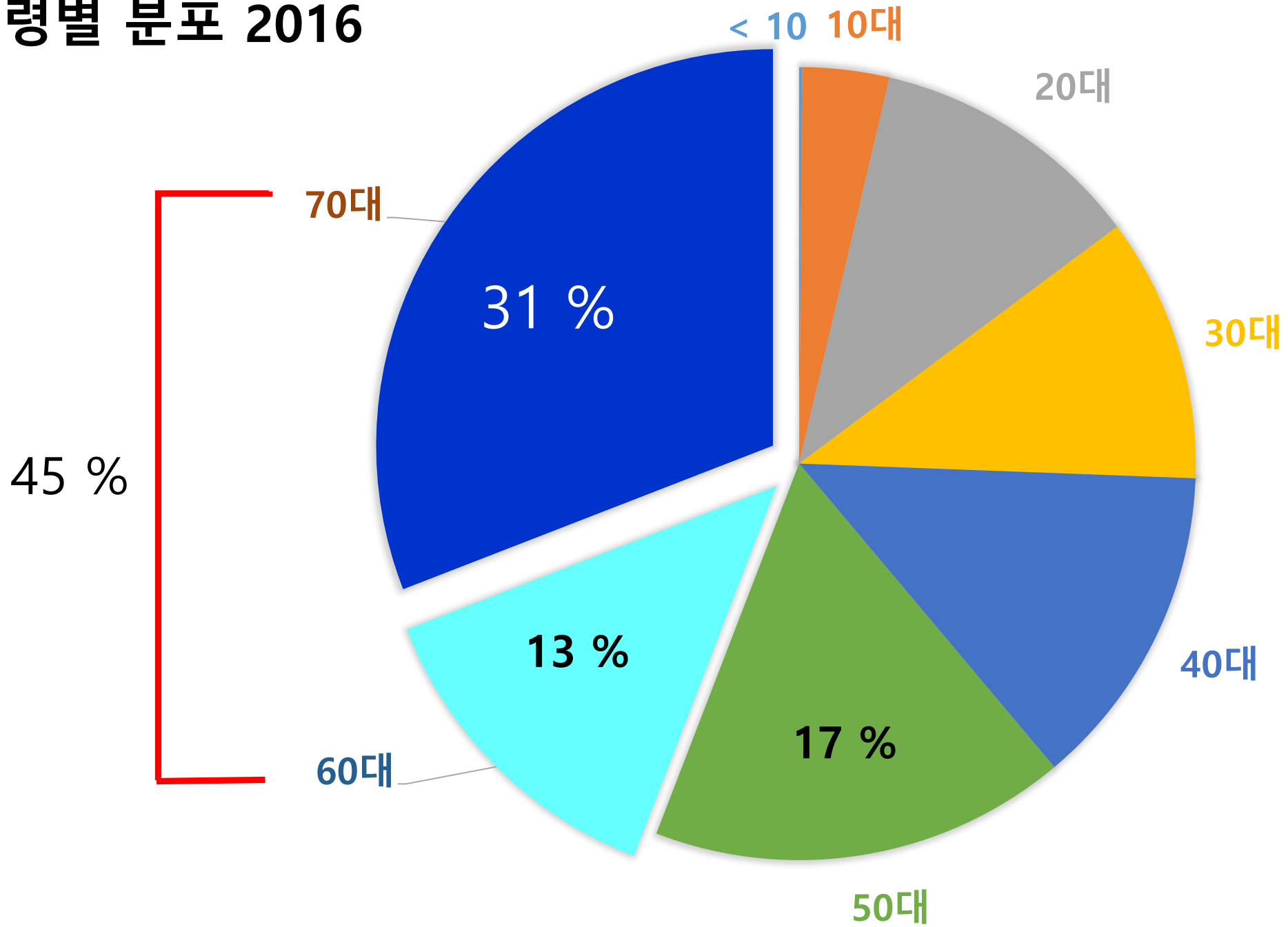
# Cases/100,000 New tuberculosis incidence rate by gender and age, 2016



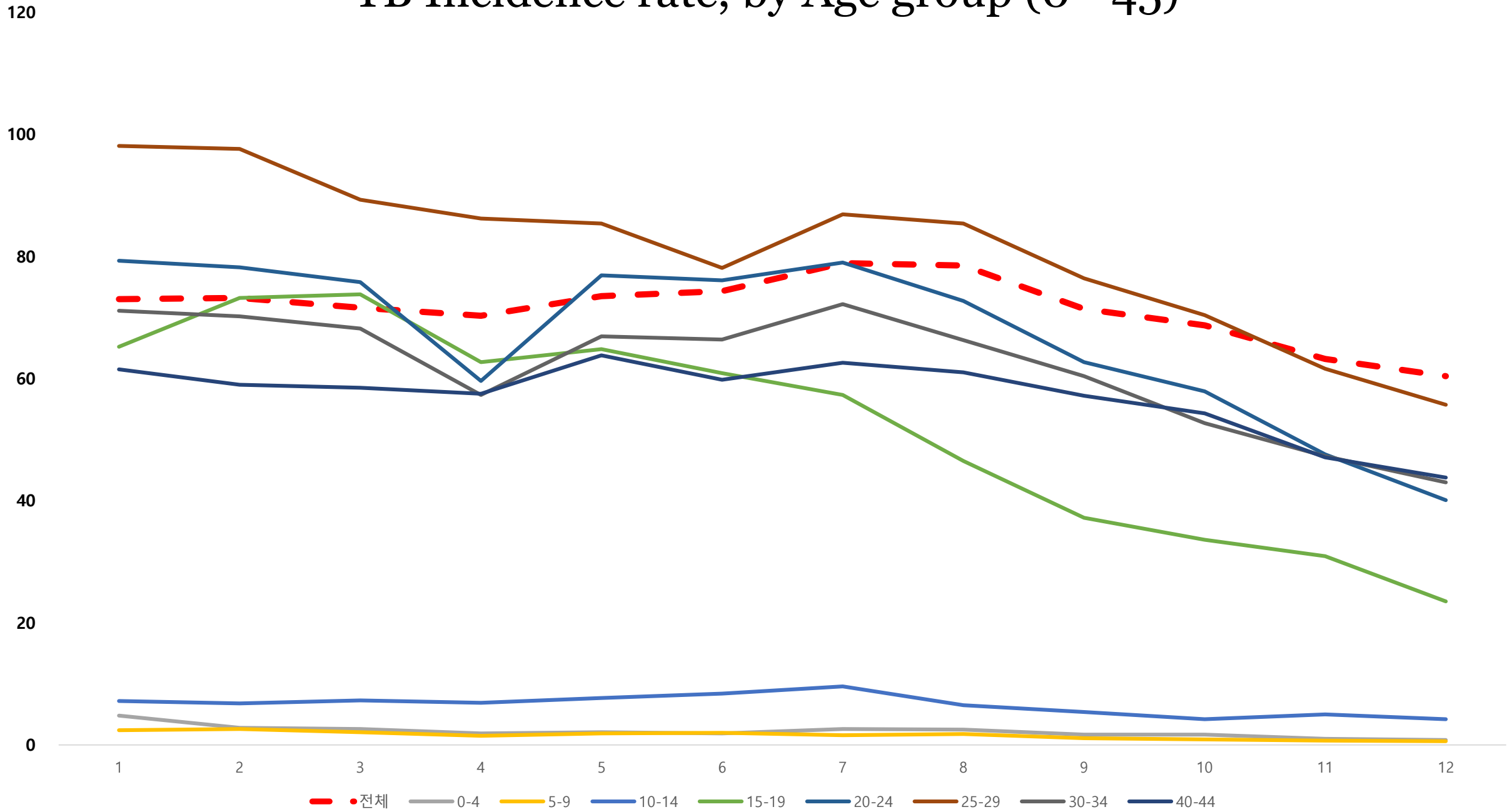
# TB Incidence Rate, Age group (76.8)



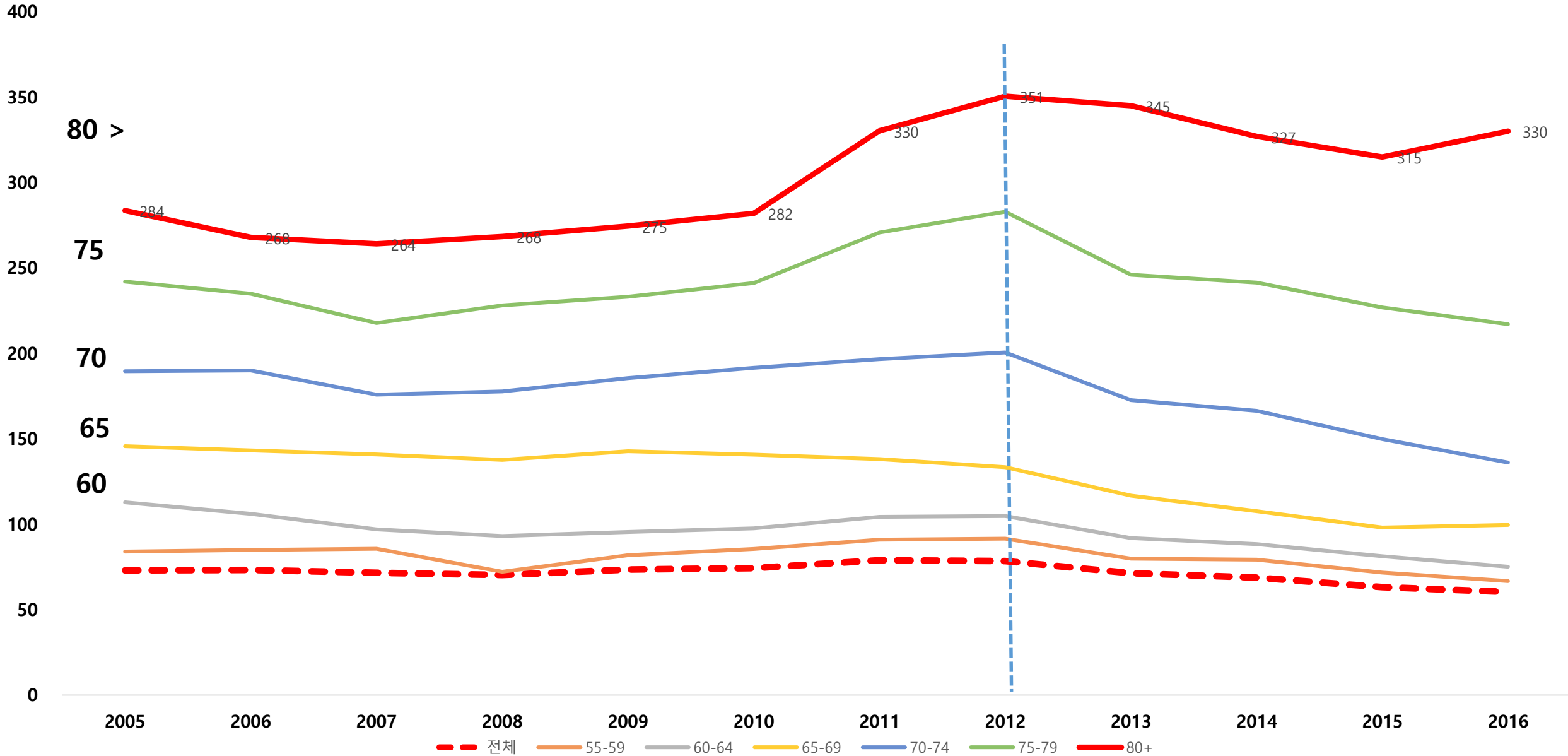
# 연령별 분포 2016



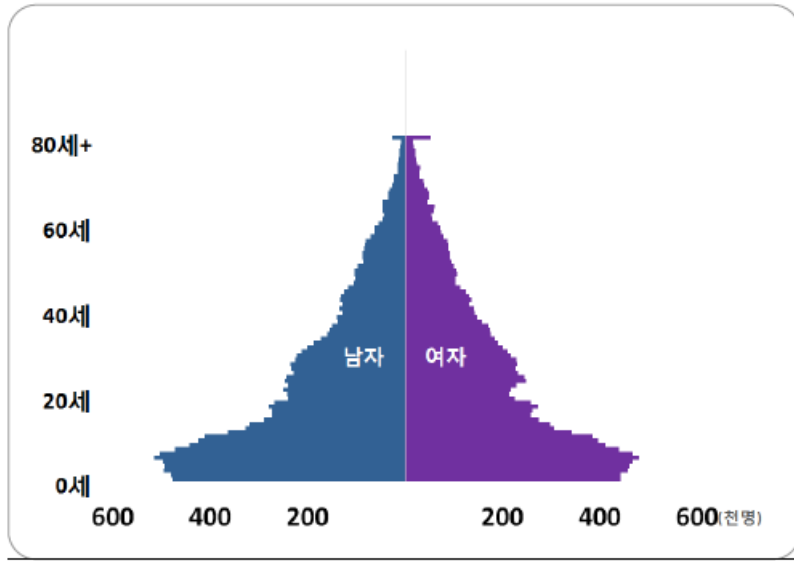
# TB Incidence rate, by Age group (0 ~45)



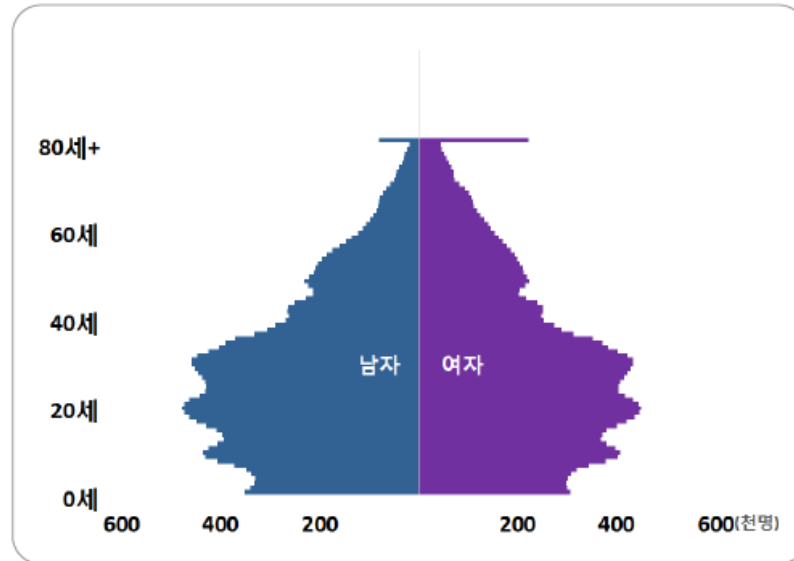
# TB Incidence rate, by Age group (55-80)



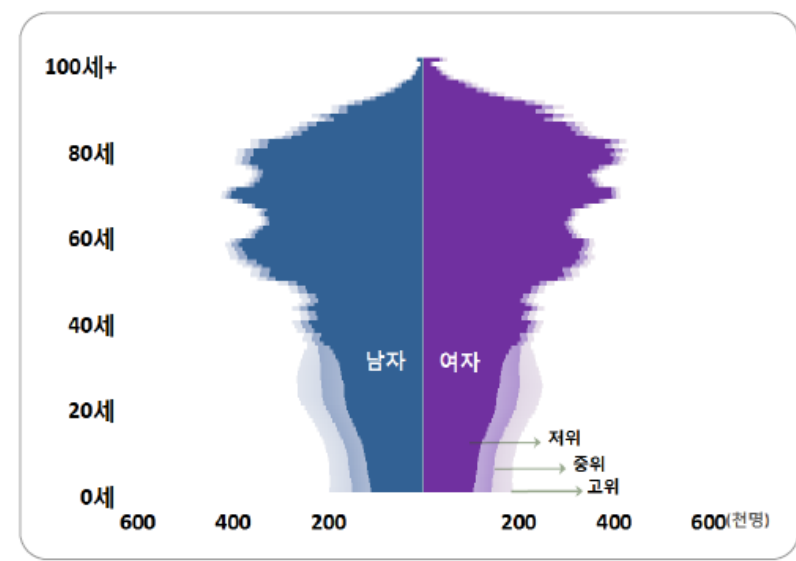
1965년



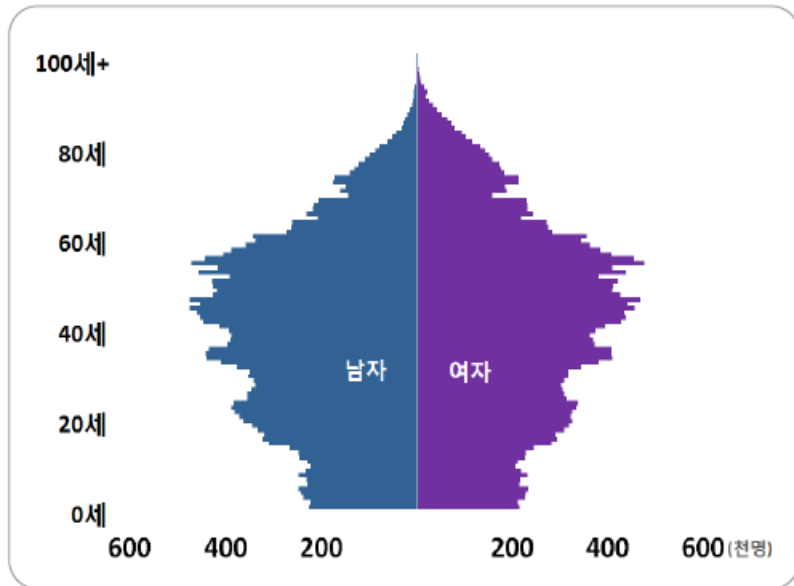
1990년



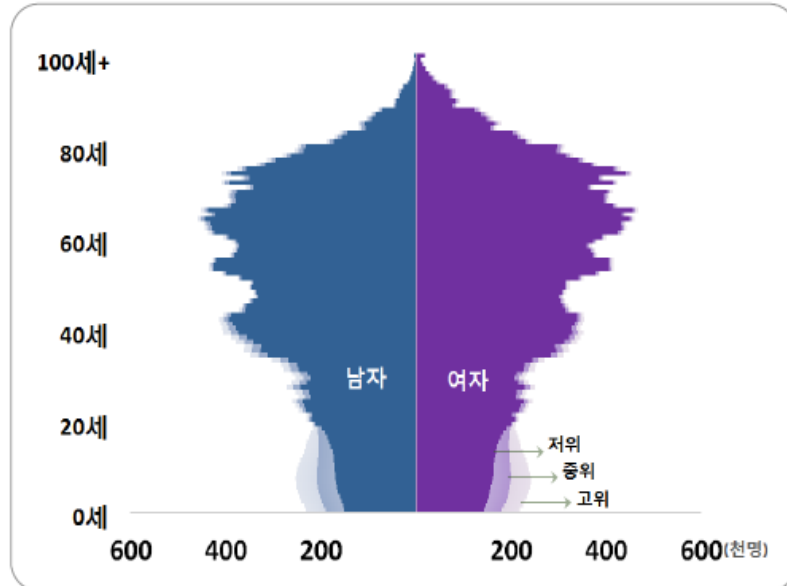
2050년



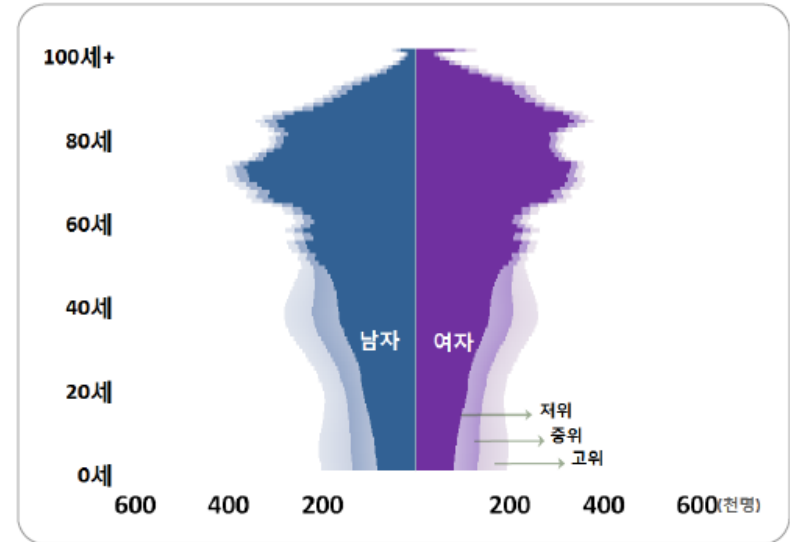
2015년



2035년

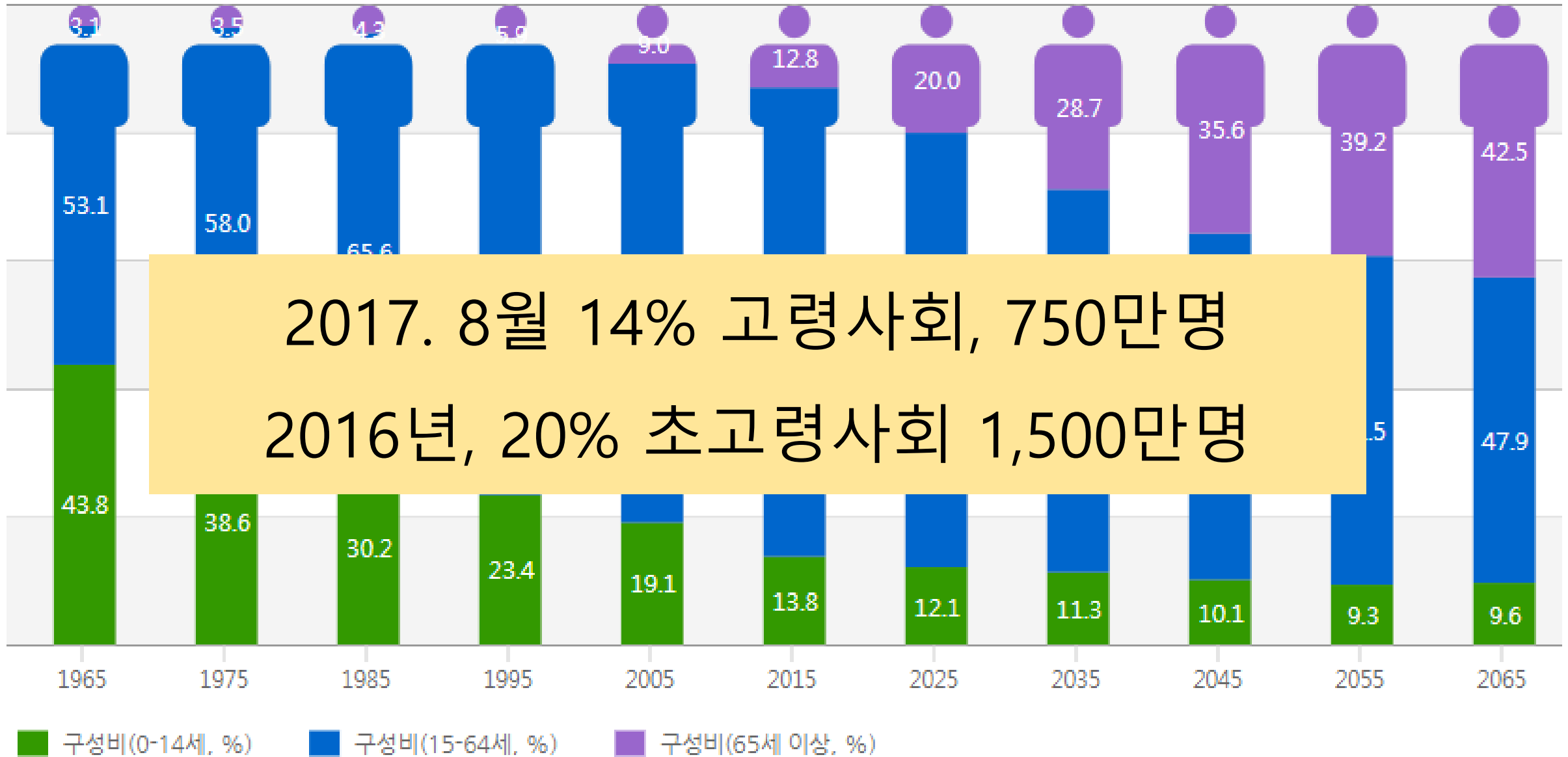


2065년

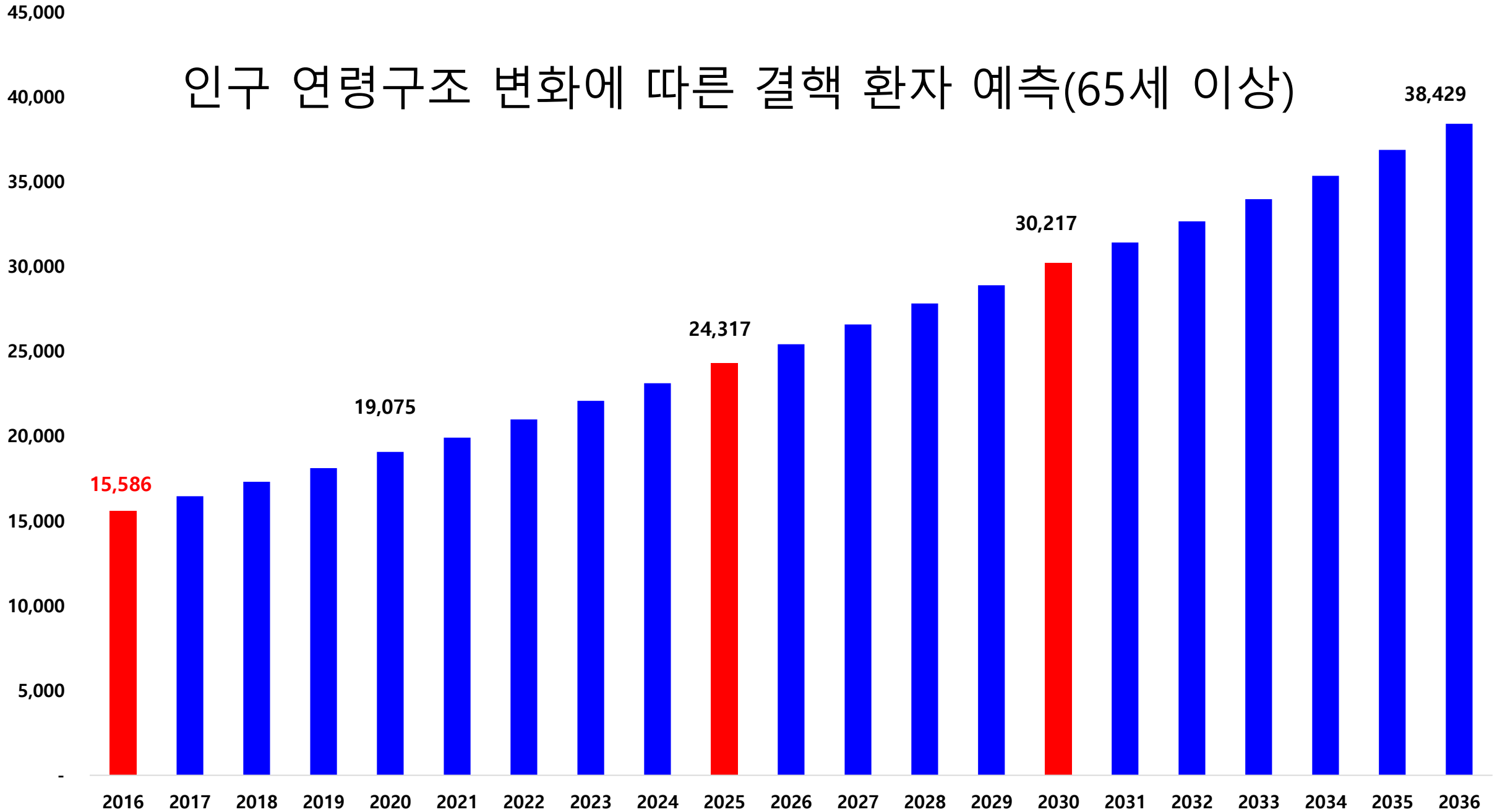


장래인구추계, 통계청 2017

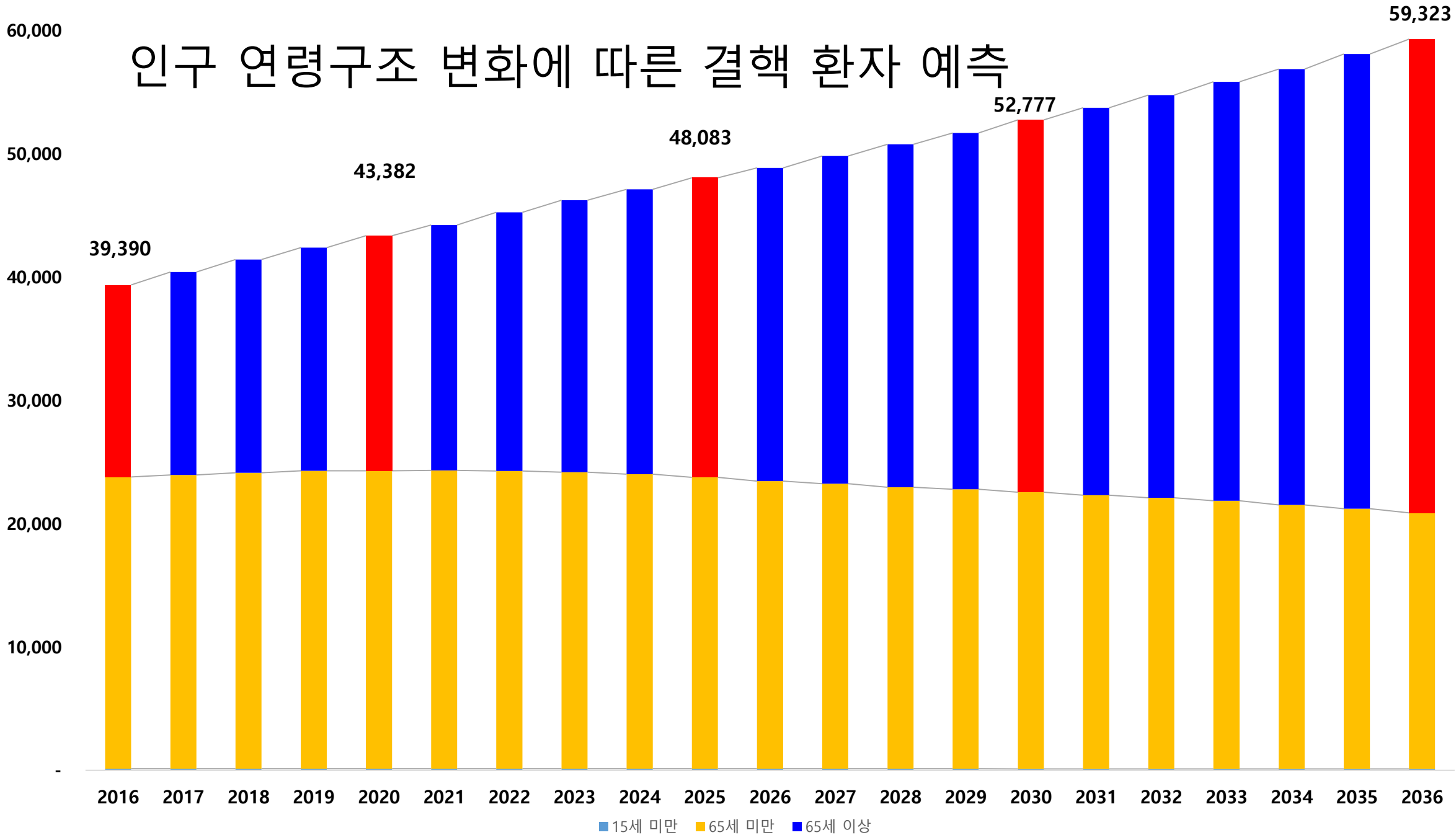
# 연령계층별 인구구성비



# 인구 연령구조 변화에 따른 결핵 환자 예측(65세 이상)

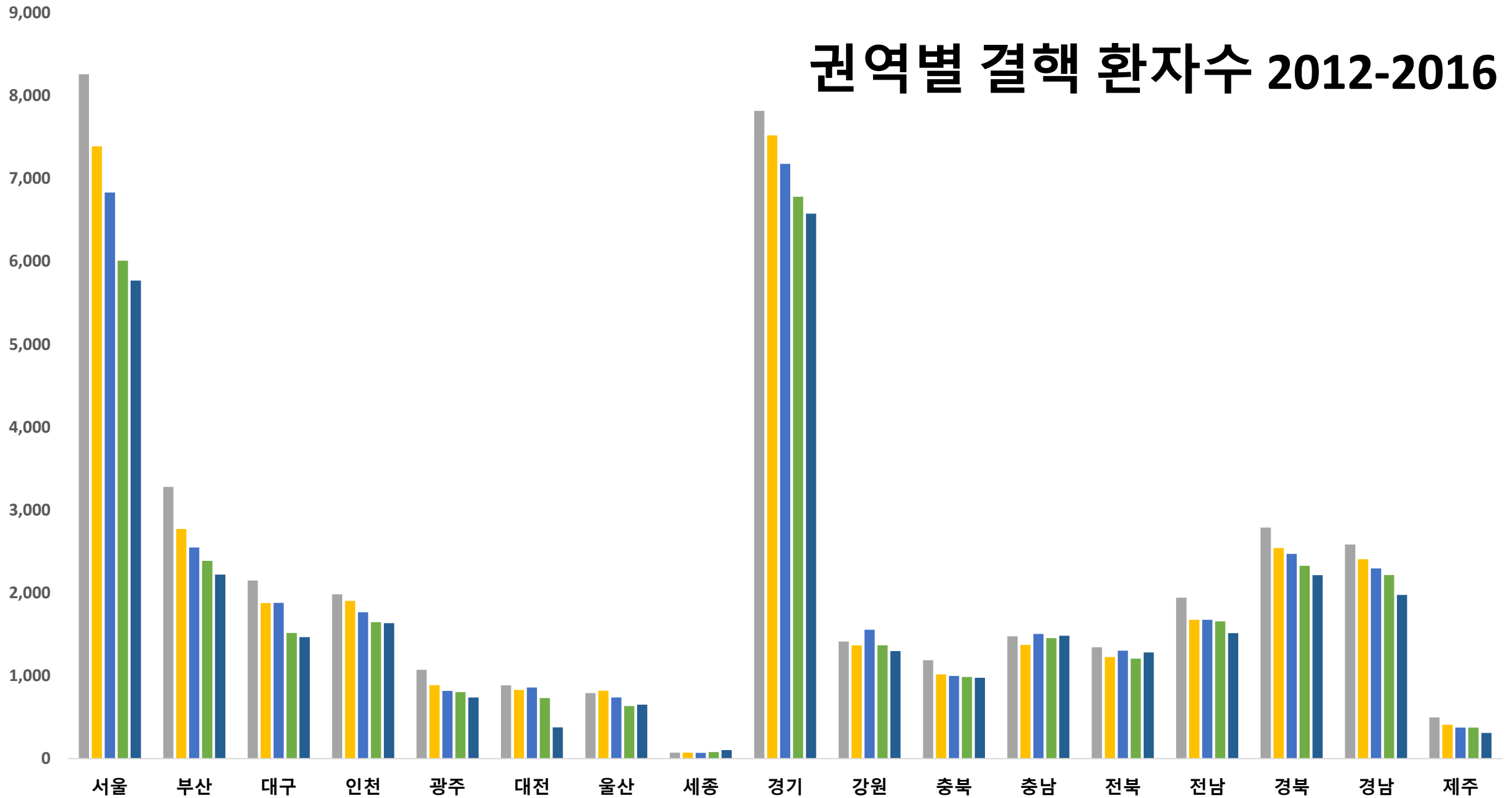


# 인구 연령구조 변화에 따른 결핵 환자 예측

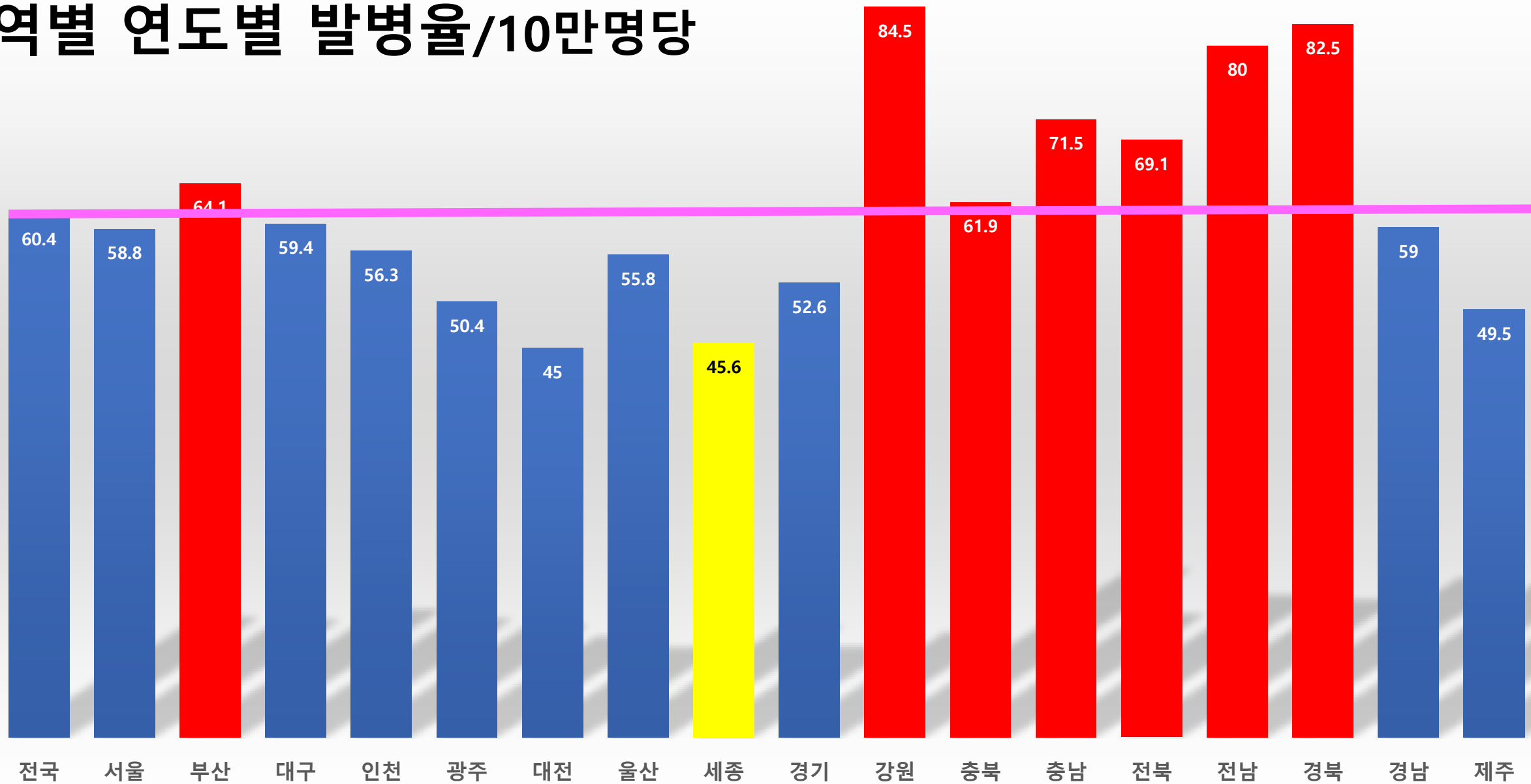


15세 미만 65세 미만 65세 이상

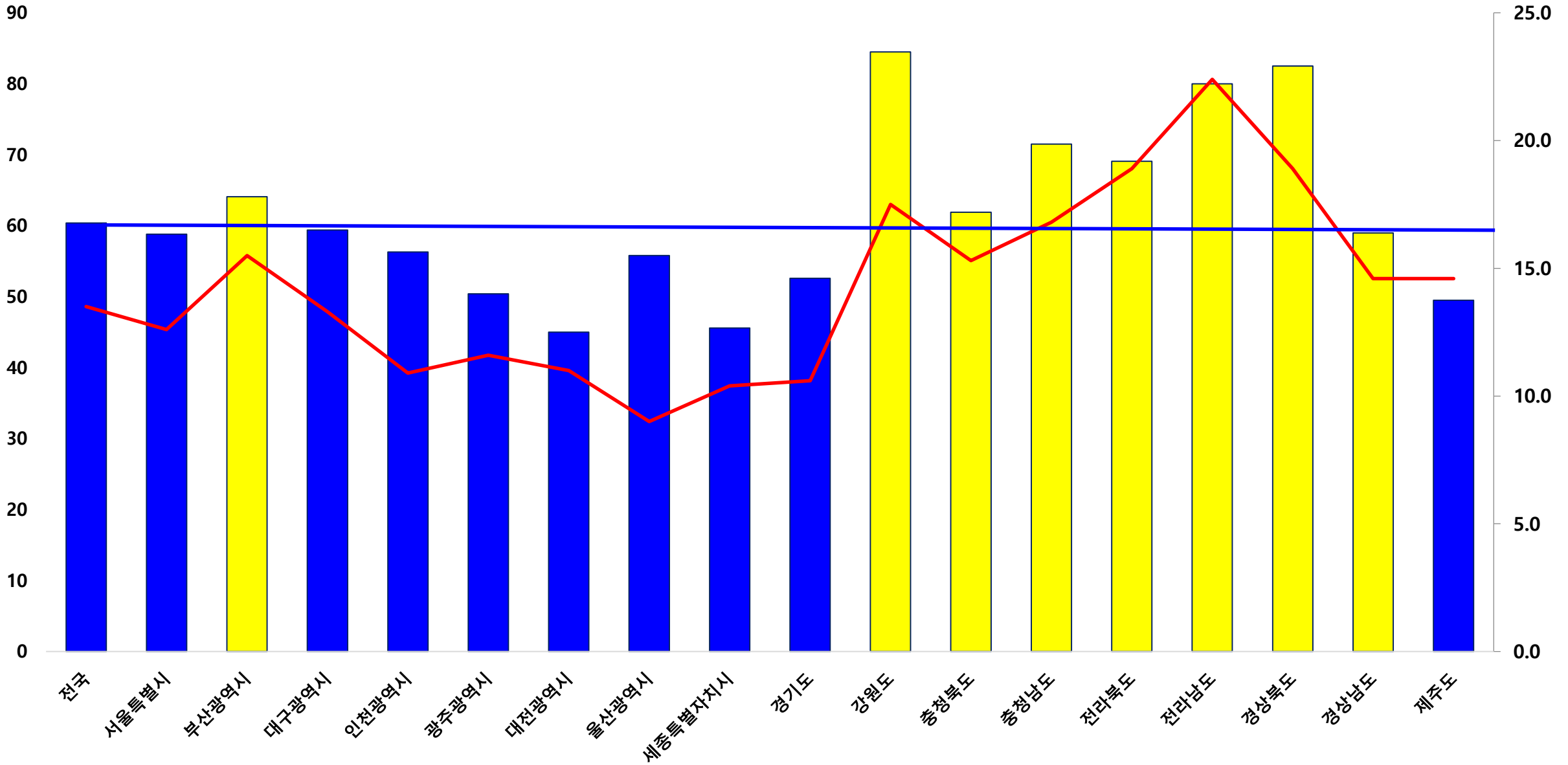
# 권역별 결핵 환자수 2012-2016



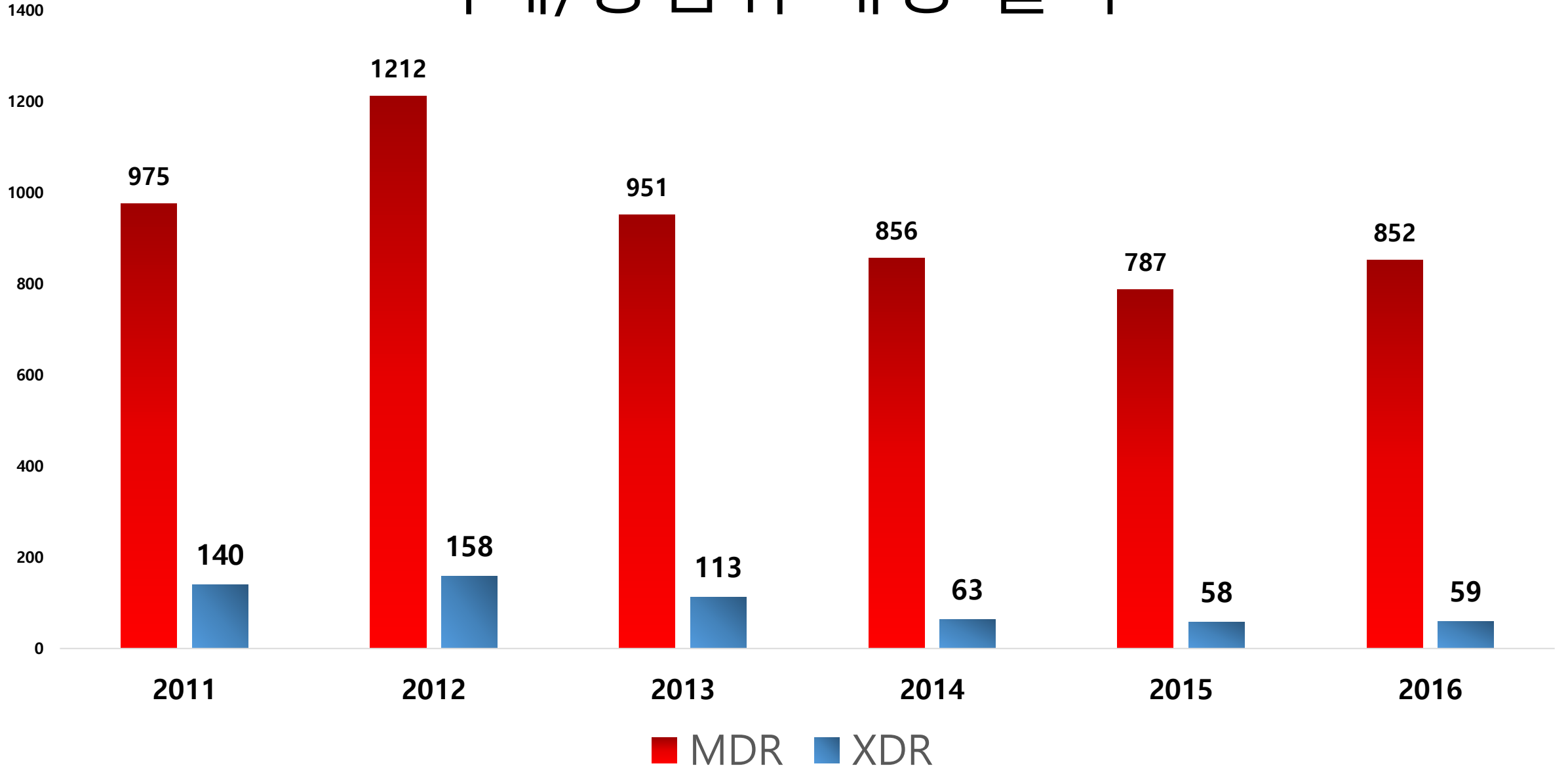
# 권역별 연도별 발병율/10만명당



# 지역별 결핵발병율-고령화비율

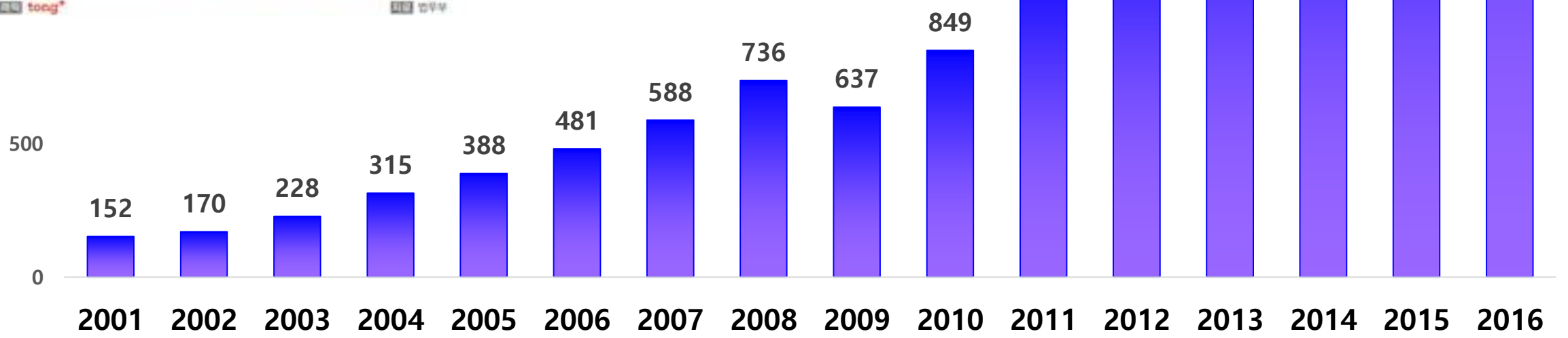
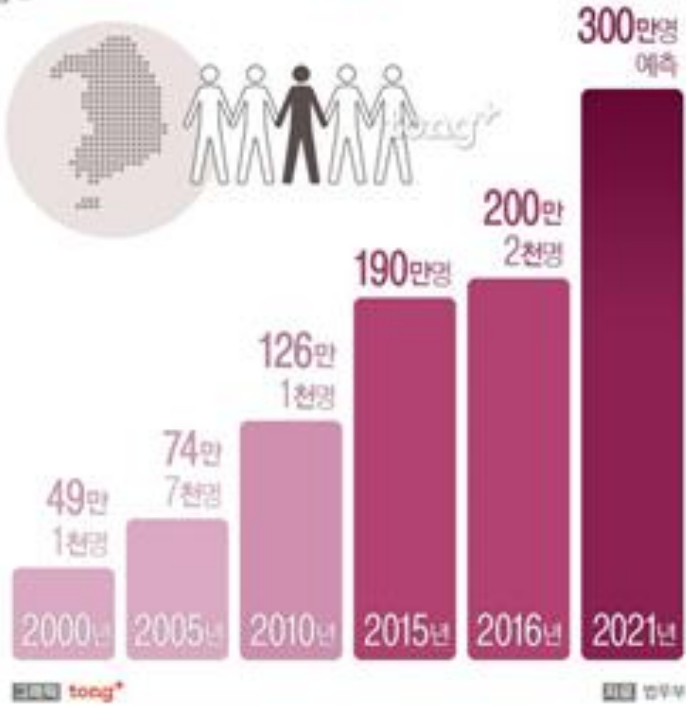


# 다제/광범위 내성 결핵



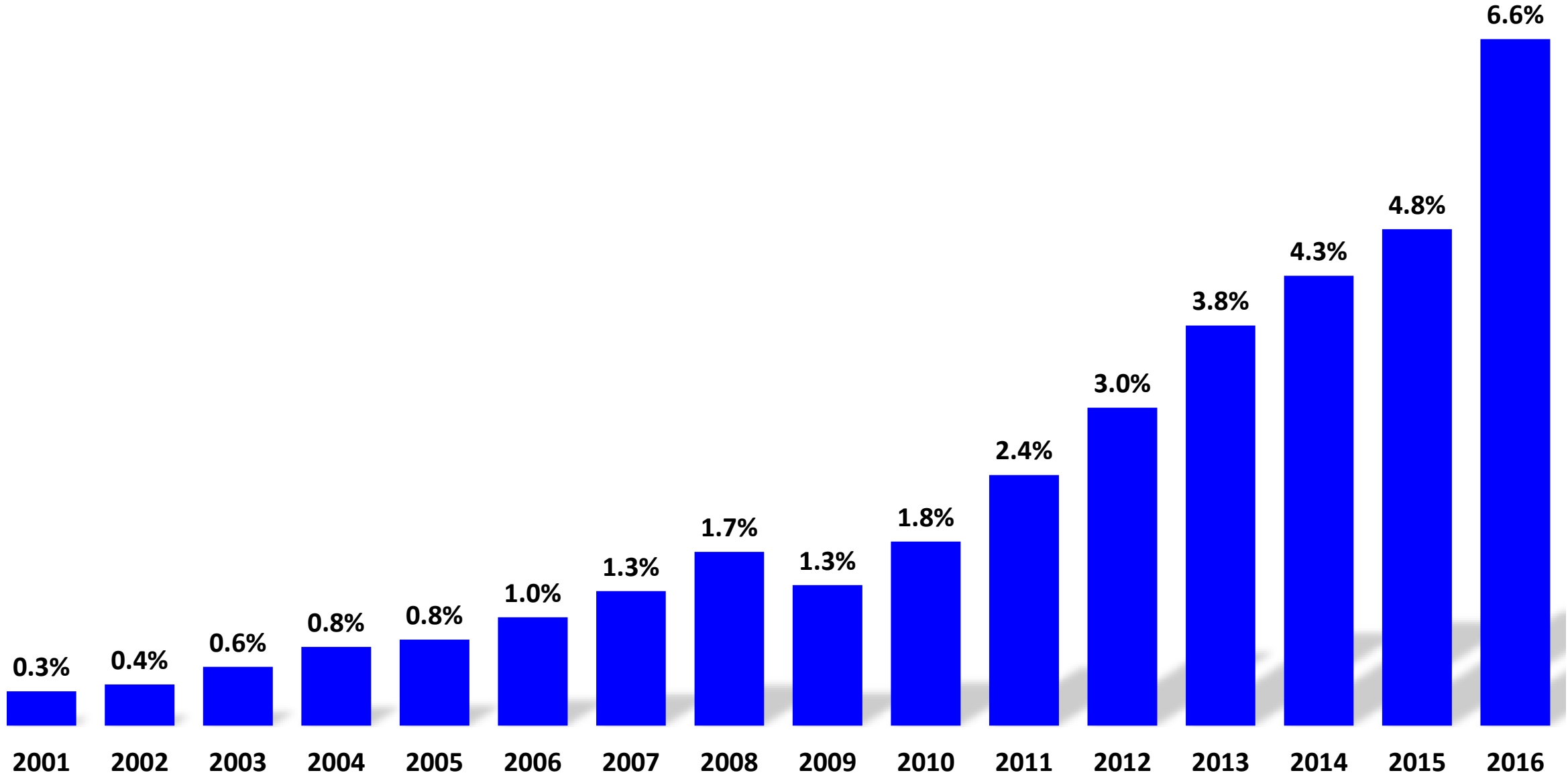
# 외국인 결핵환자

129/10만명



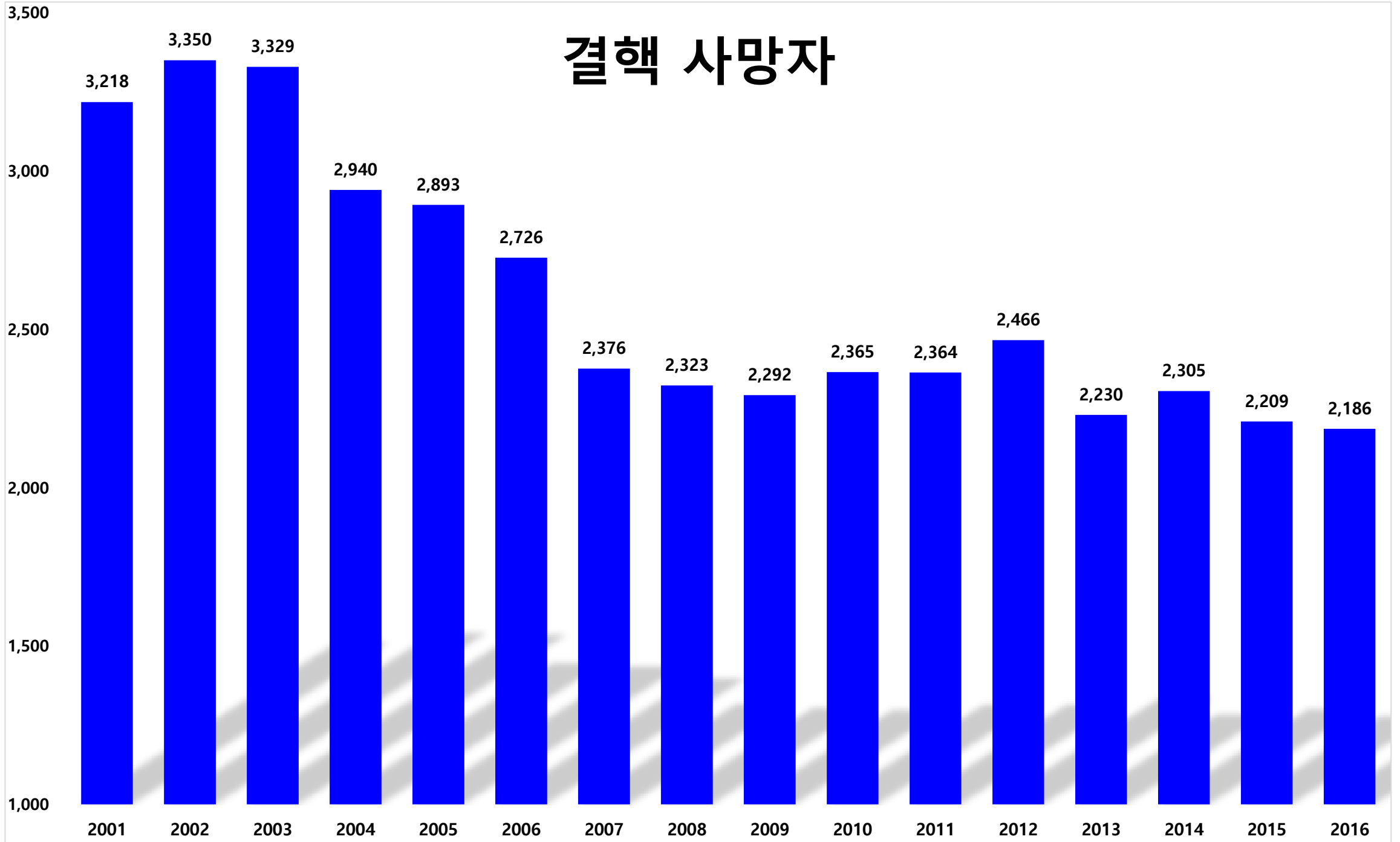
97  
32%

# 외국인 결핵환자 비율

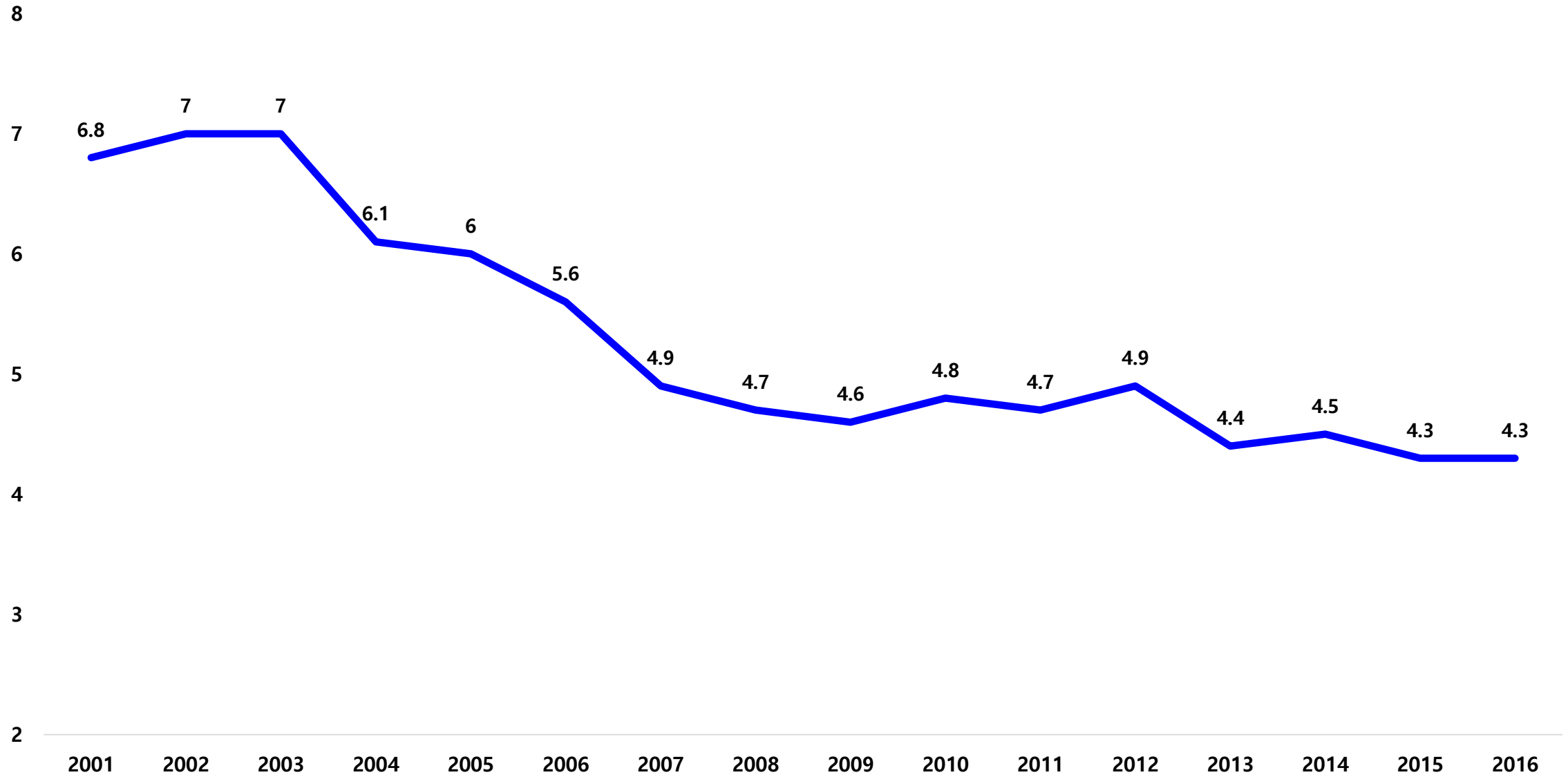


# TB Mortality

# 결핵 사망자

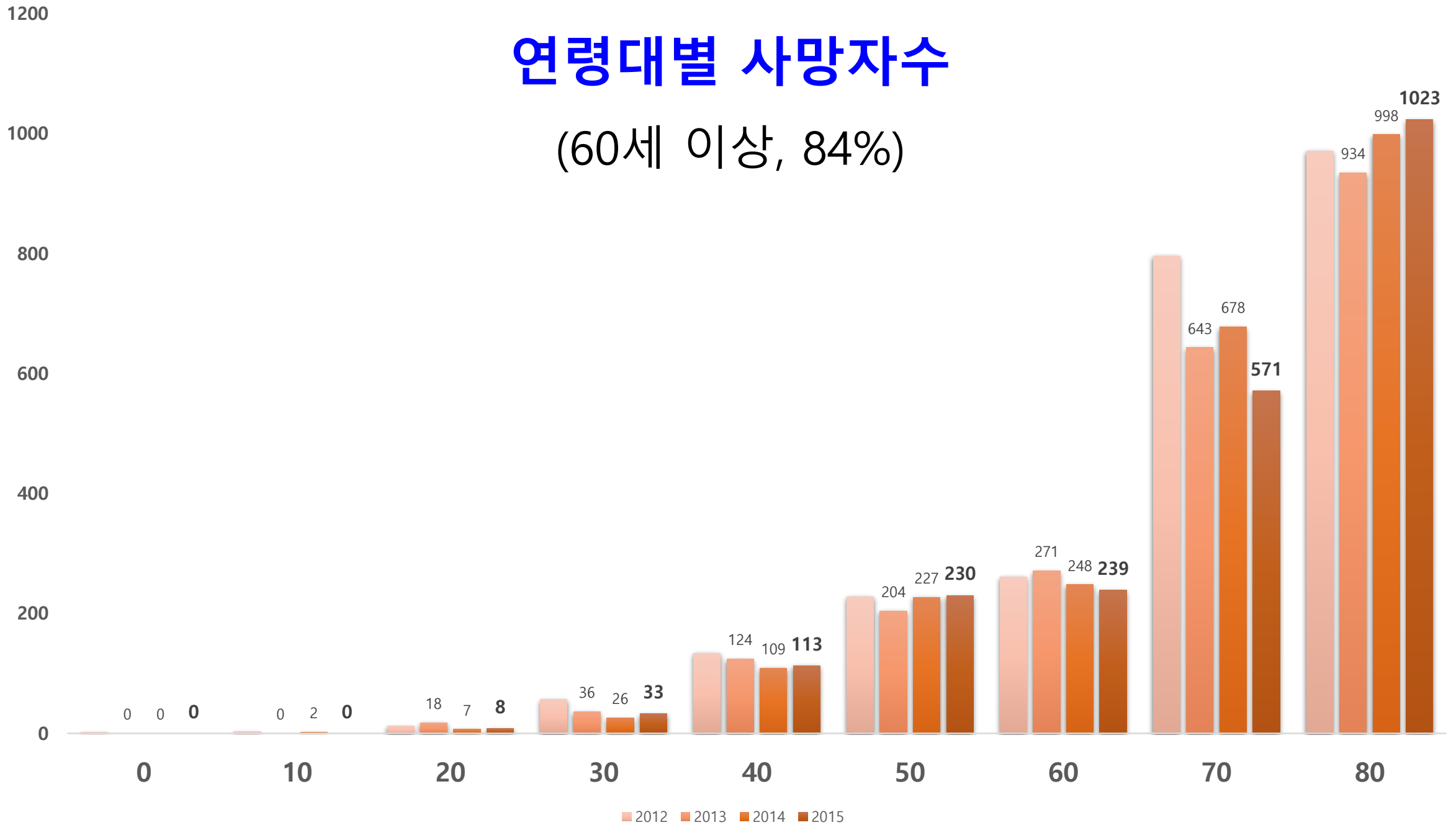


# 결핵 사망률, (/10만명)



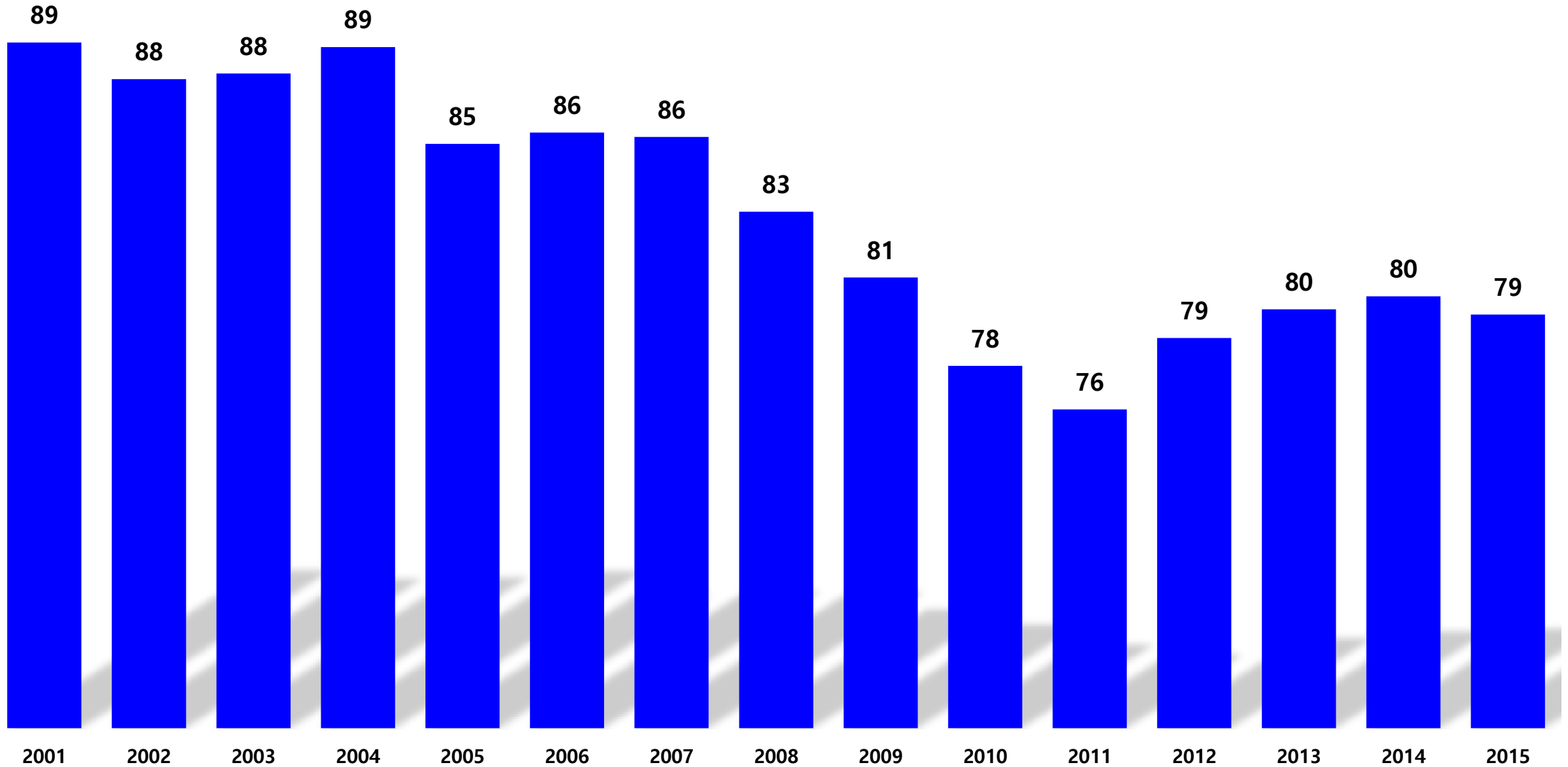
# 연령대별 사망자수

(60세 이상, 84%)

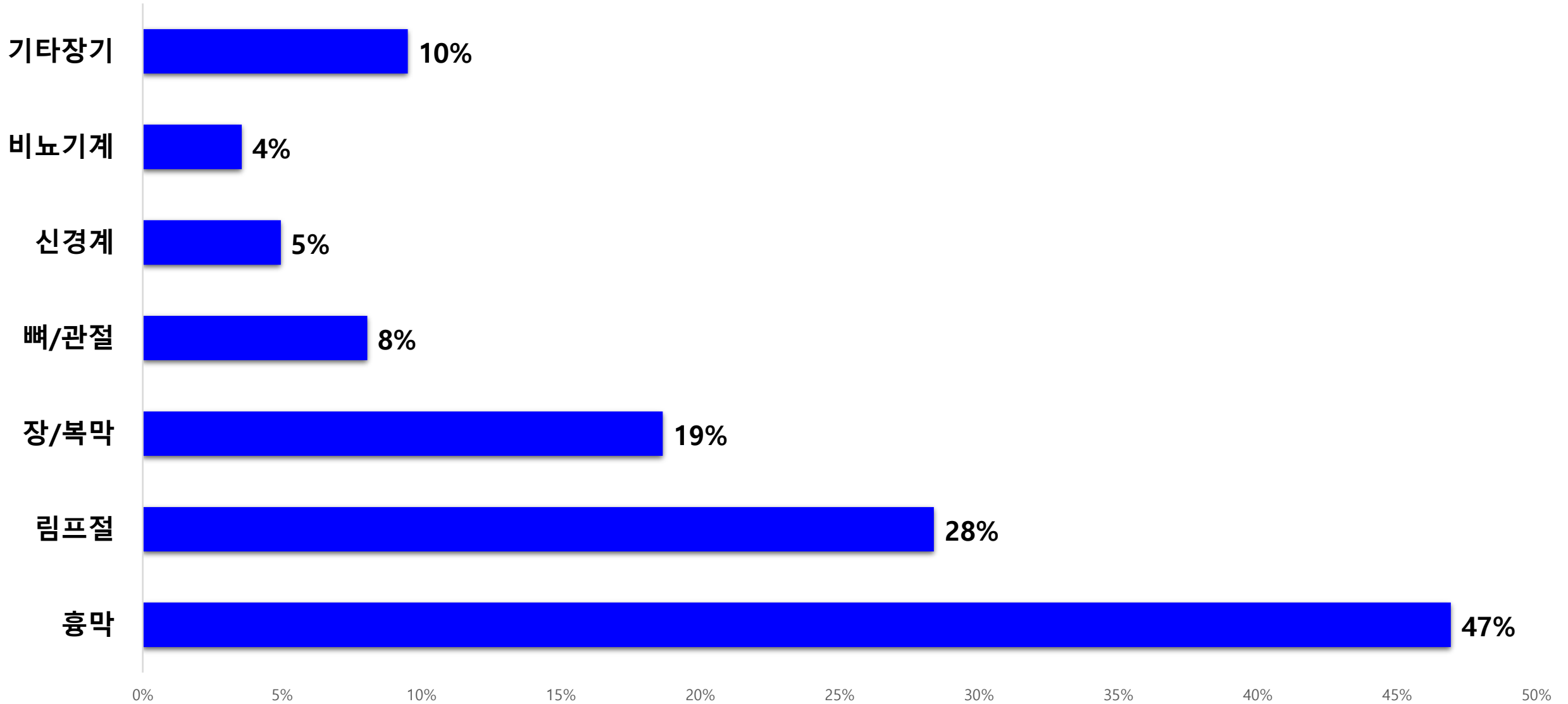


# TB classification by **Pathologic location**

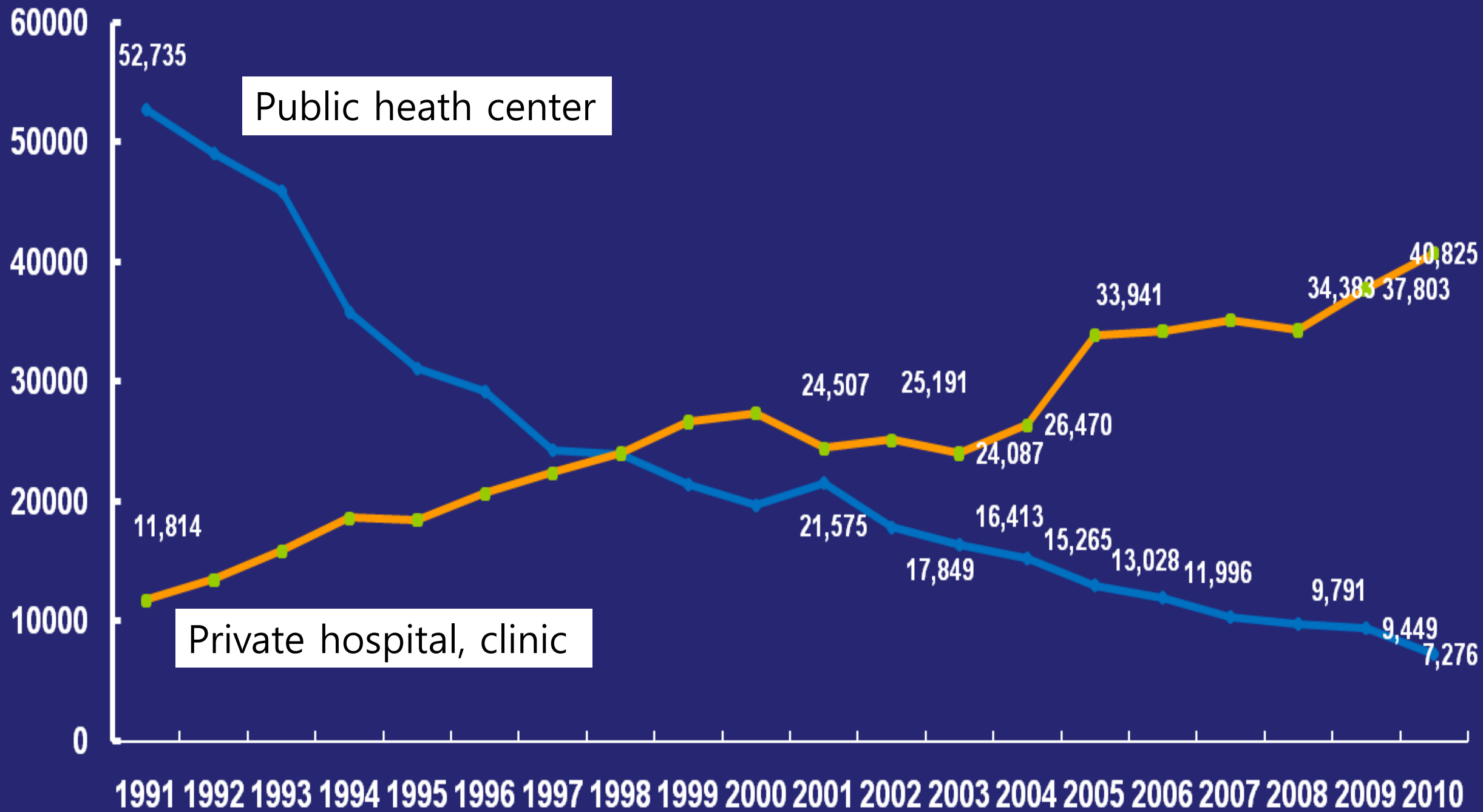
# 폐결핵 비율

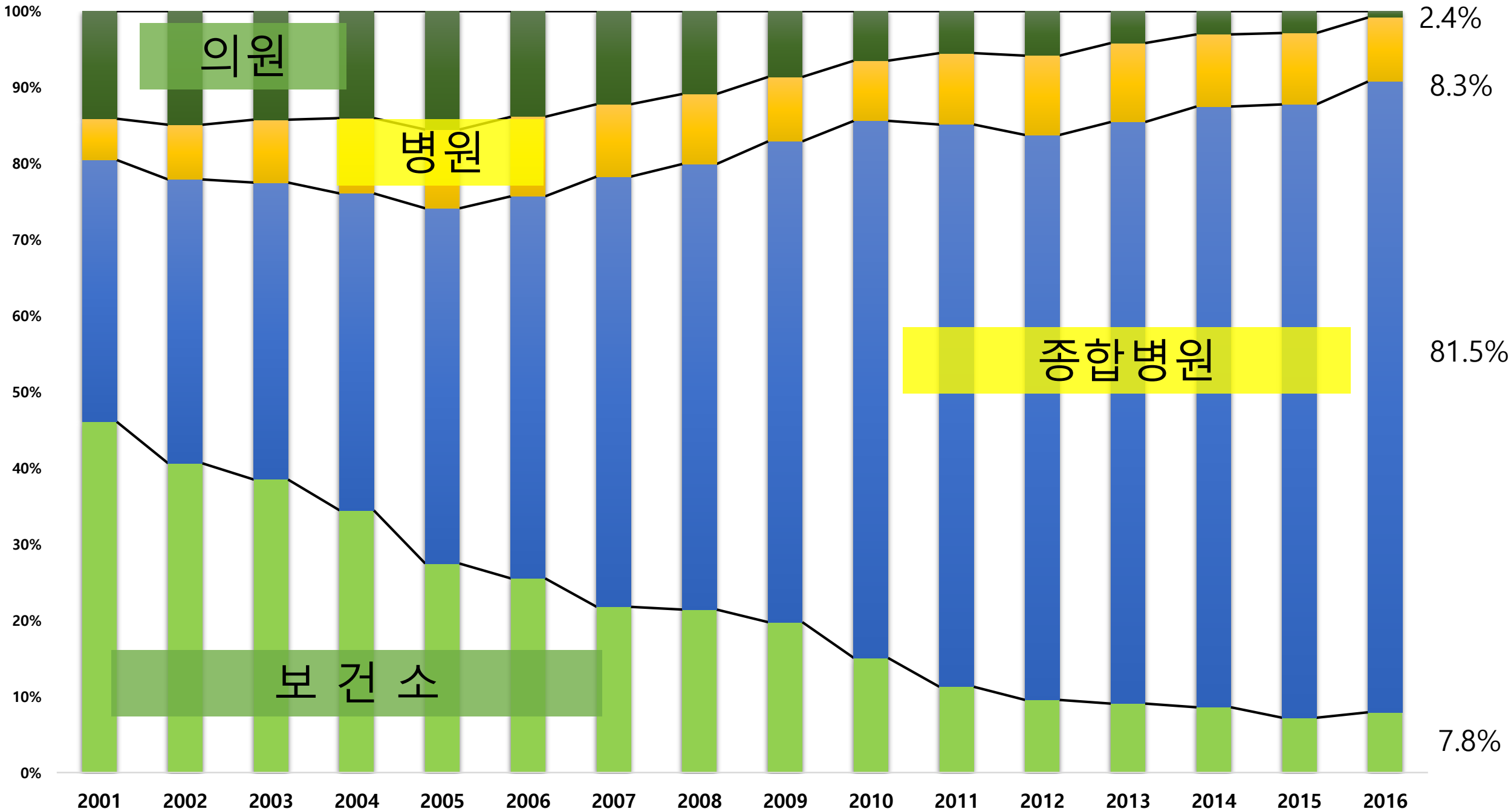


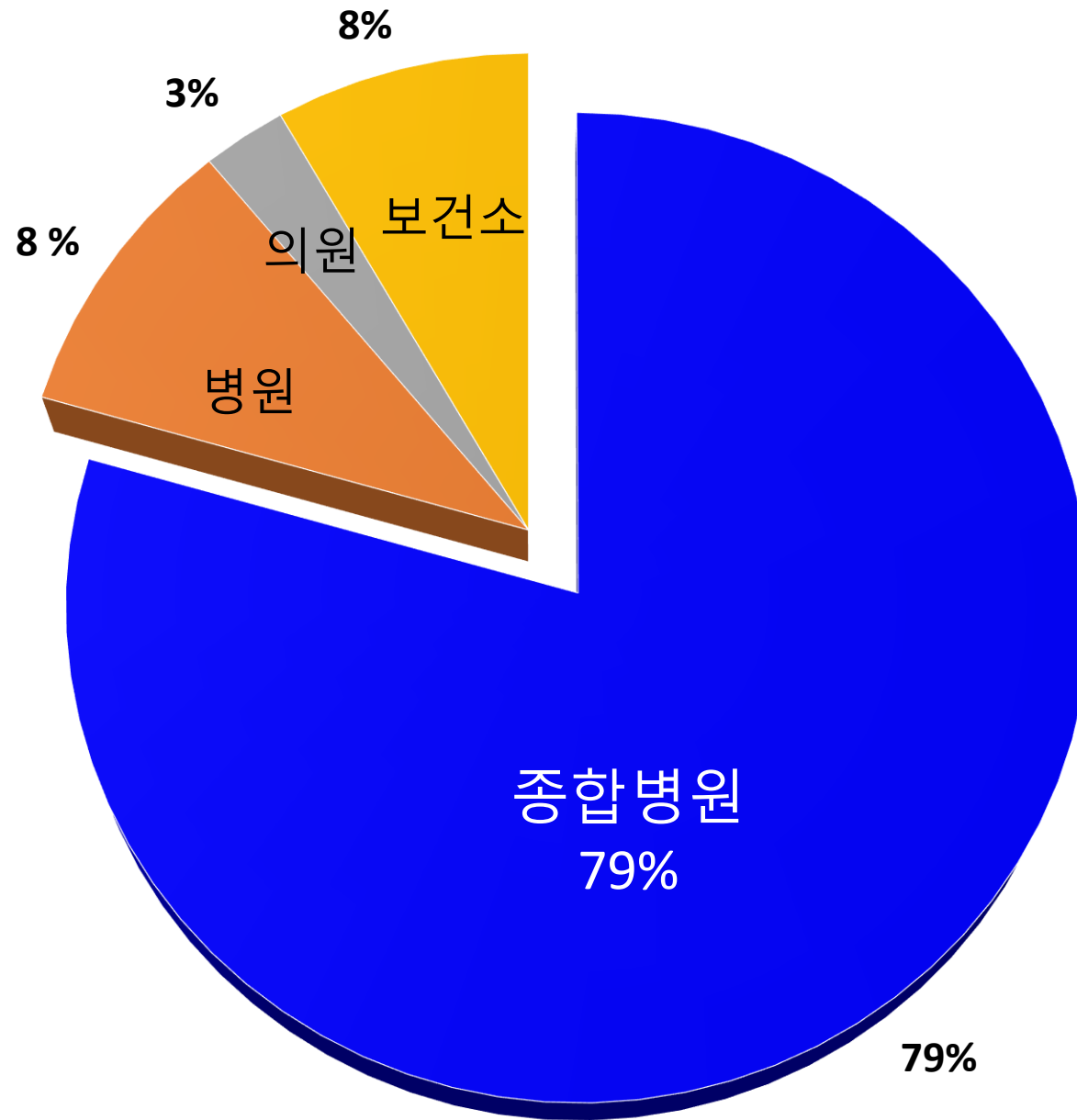
# 폐외 결핵



# 결핵 치료 기관

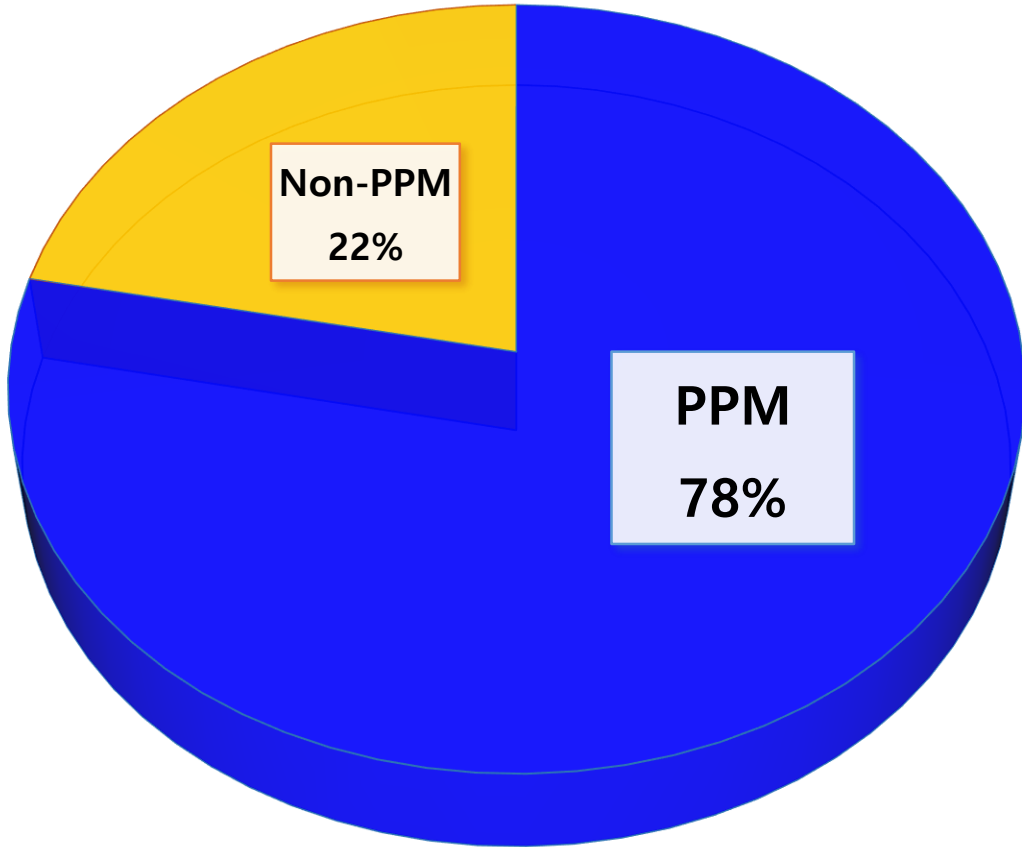




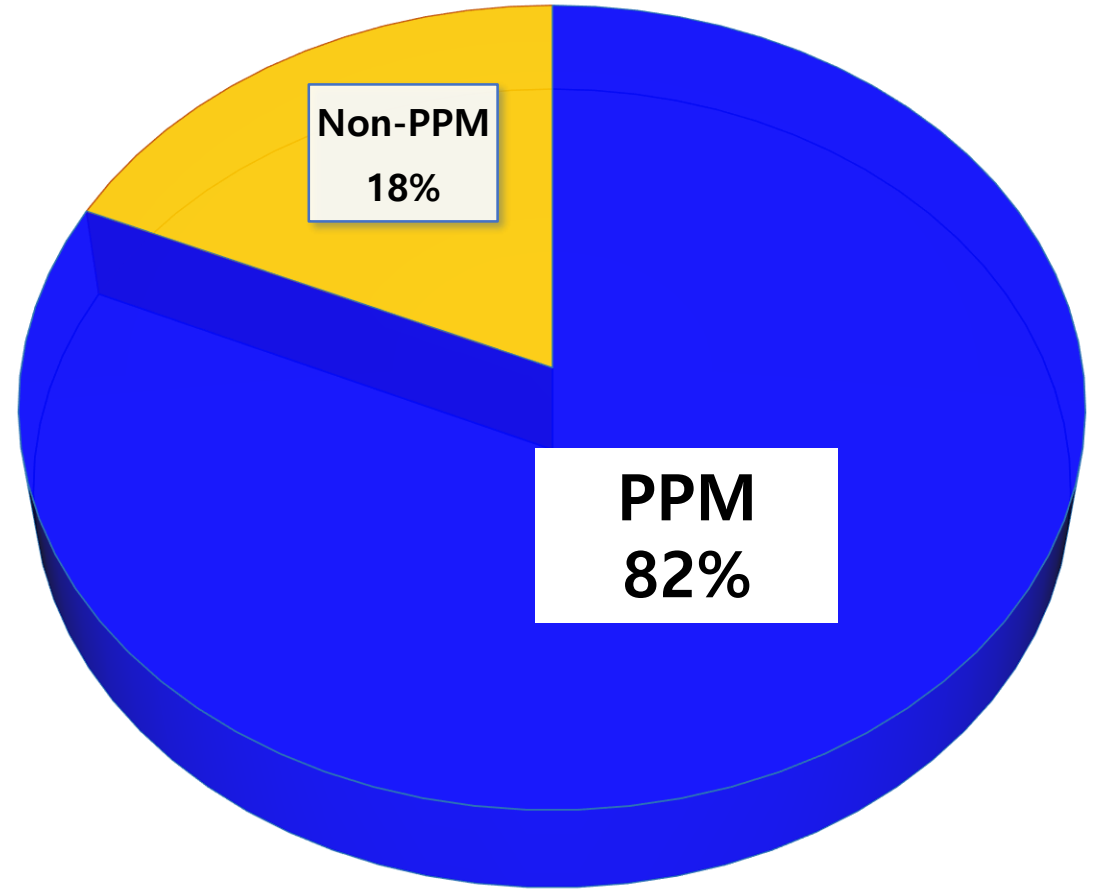


■ 종합병원 ■ 병원 ■ 의원 ■ 보건소

# 환자관리 비율



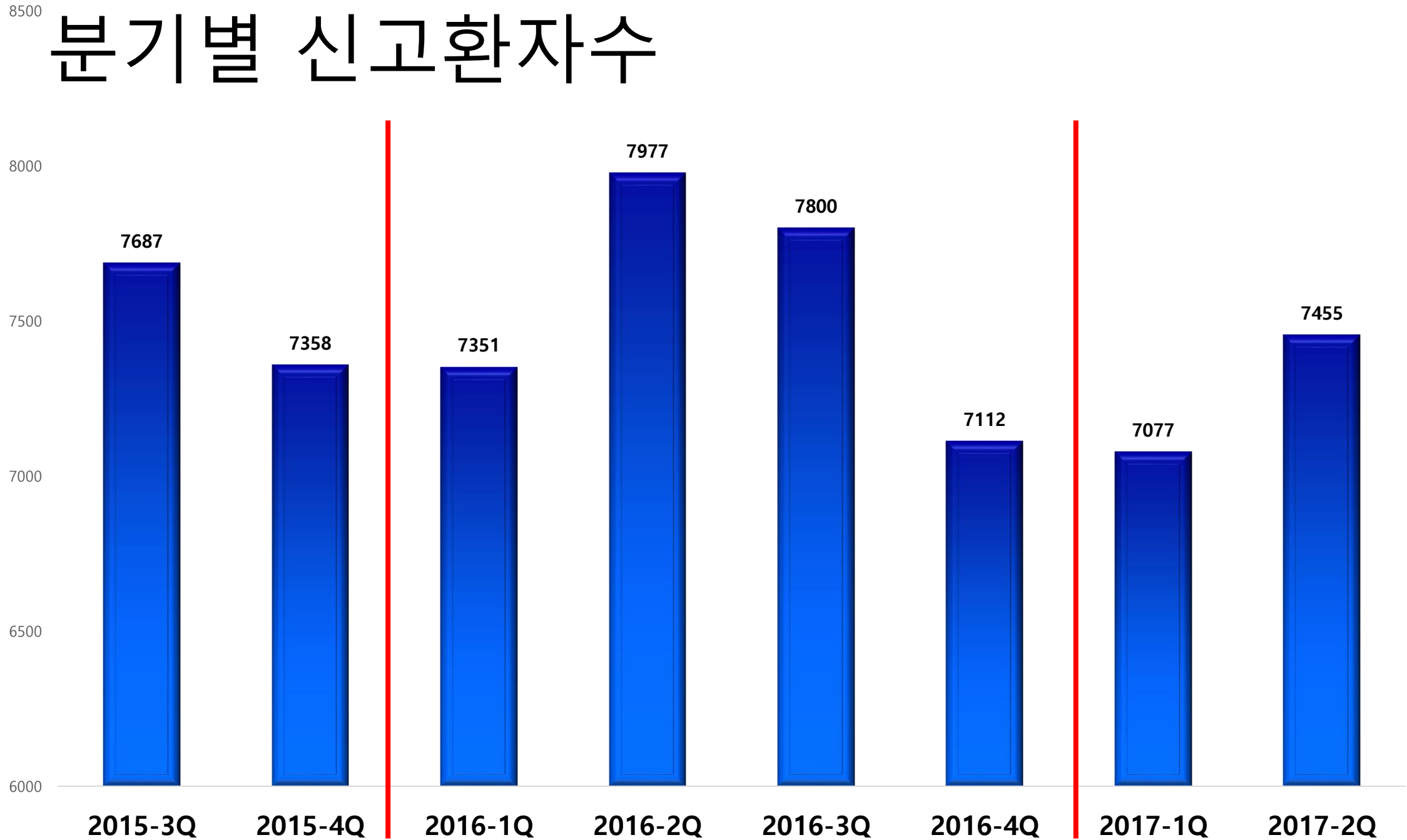
신고환자



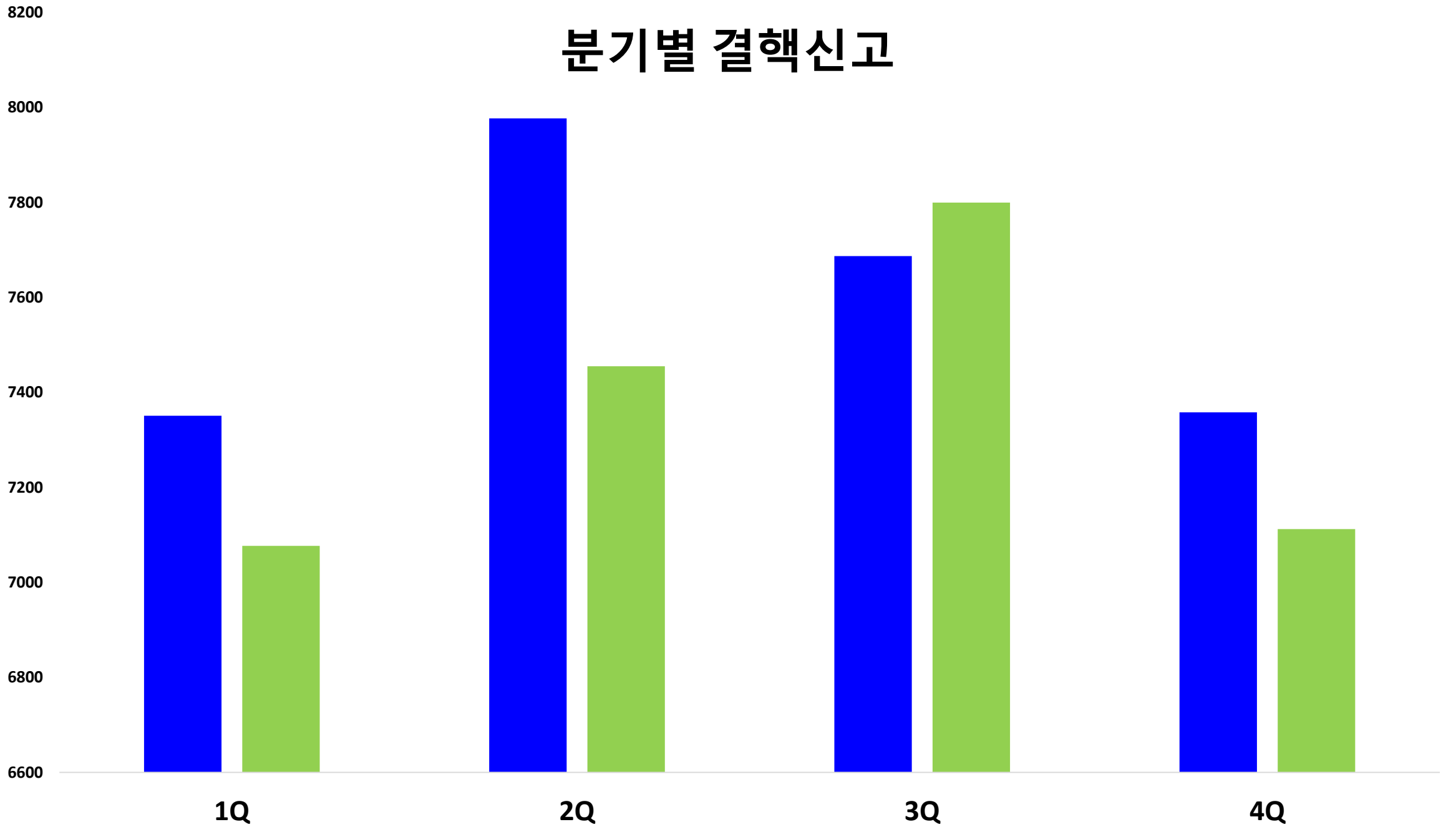
신 환자

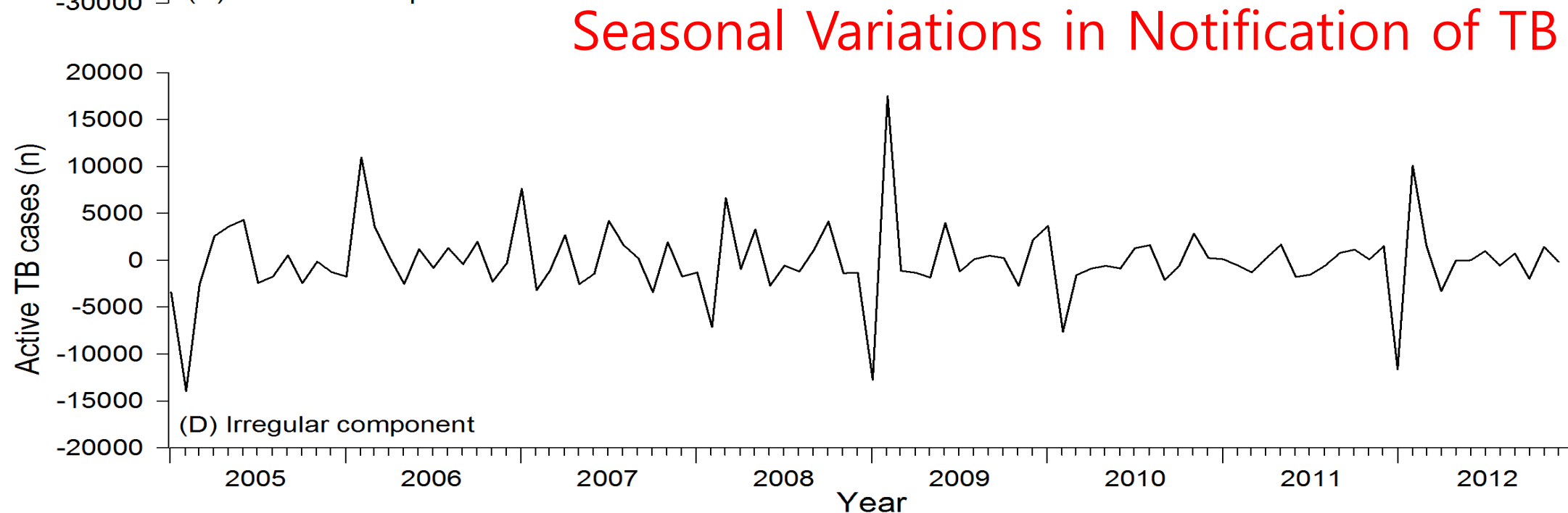
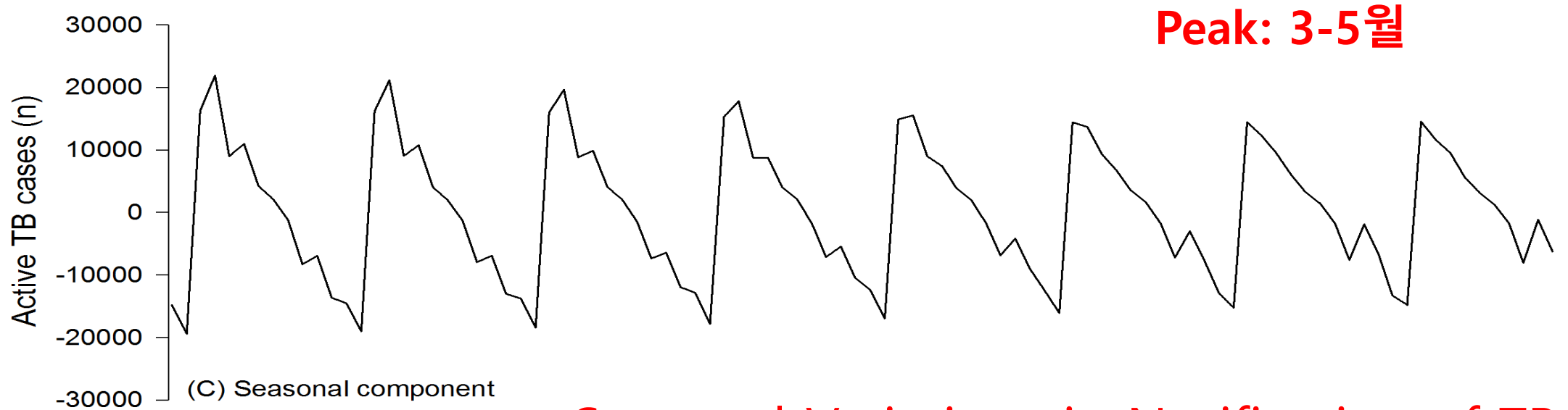
## 2. PPM 모니터링 지표 분석

# 분기별 신고환자수



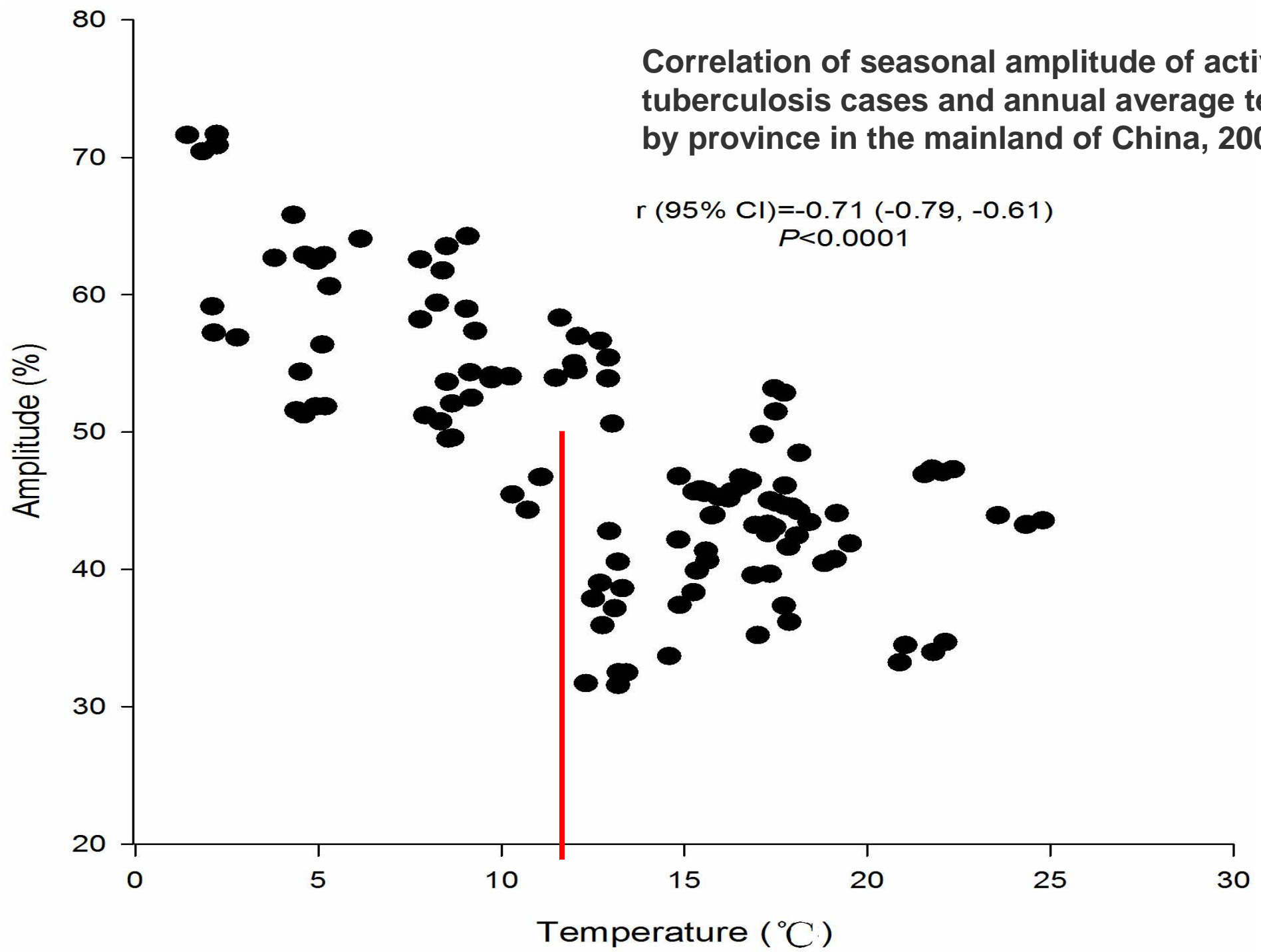
# 분기별 결핵신고



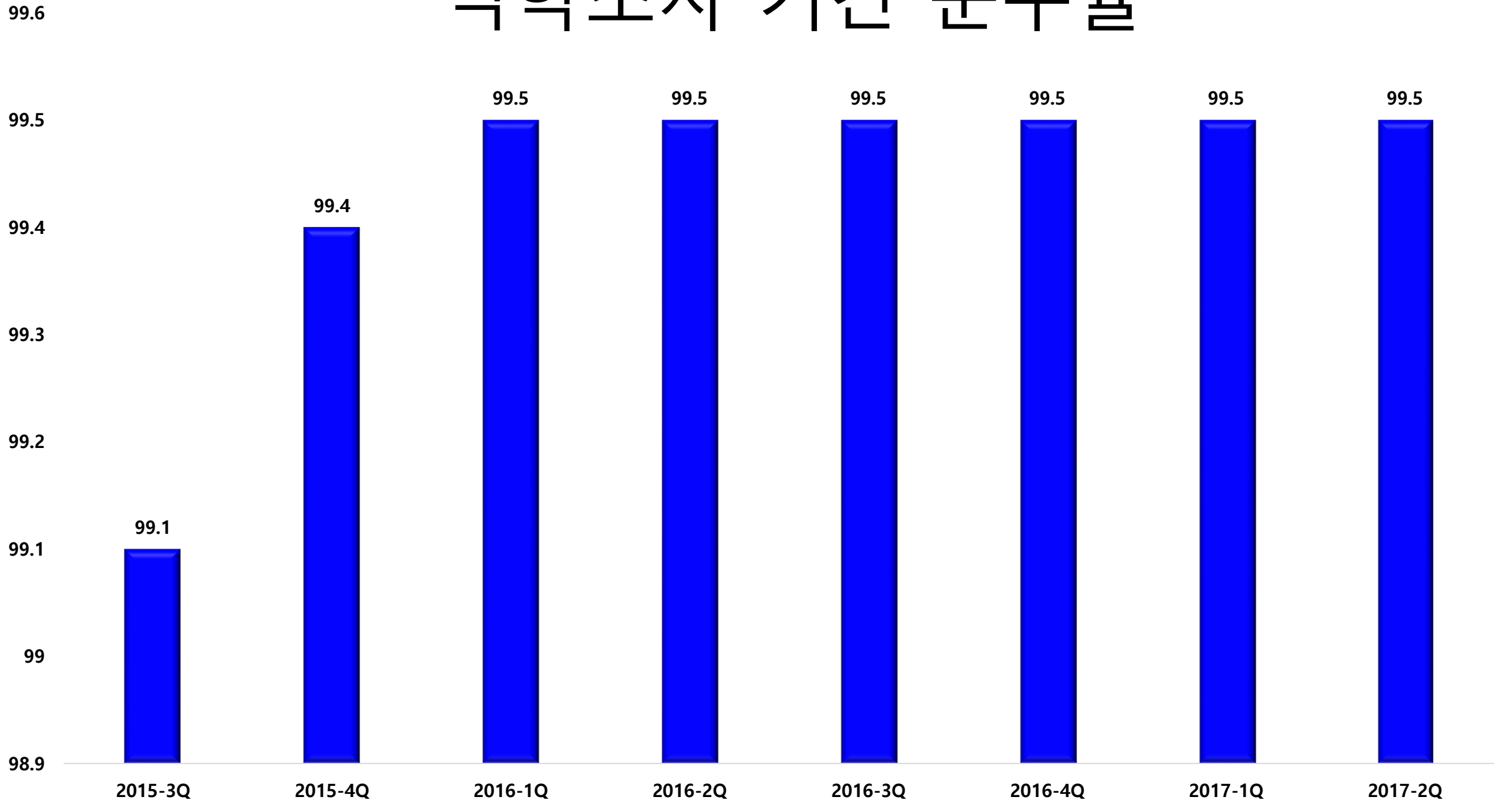


Seasonal Variations in Notification of Active Tuberculosis Cases in China, 2005–2012

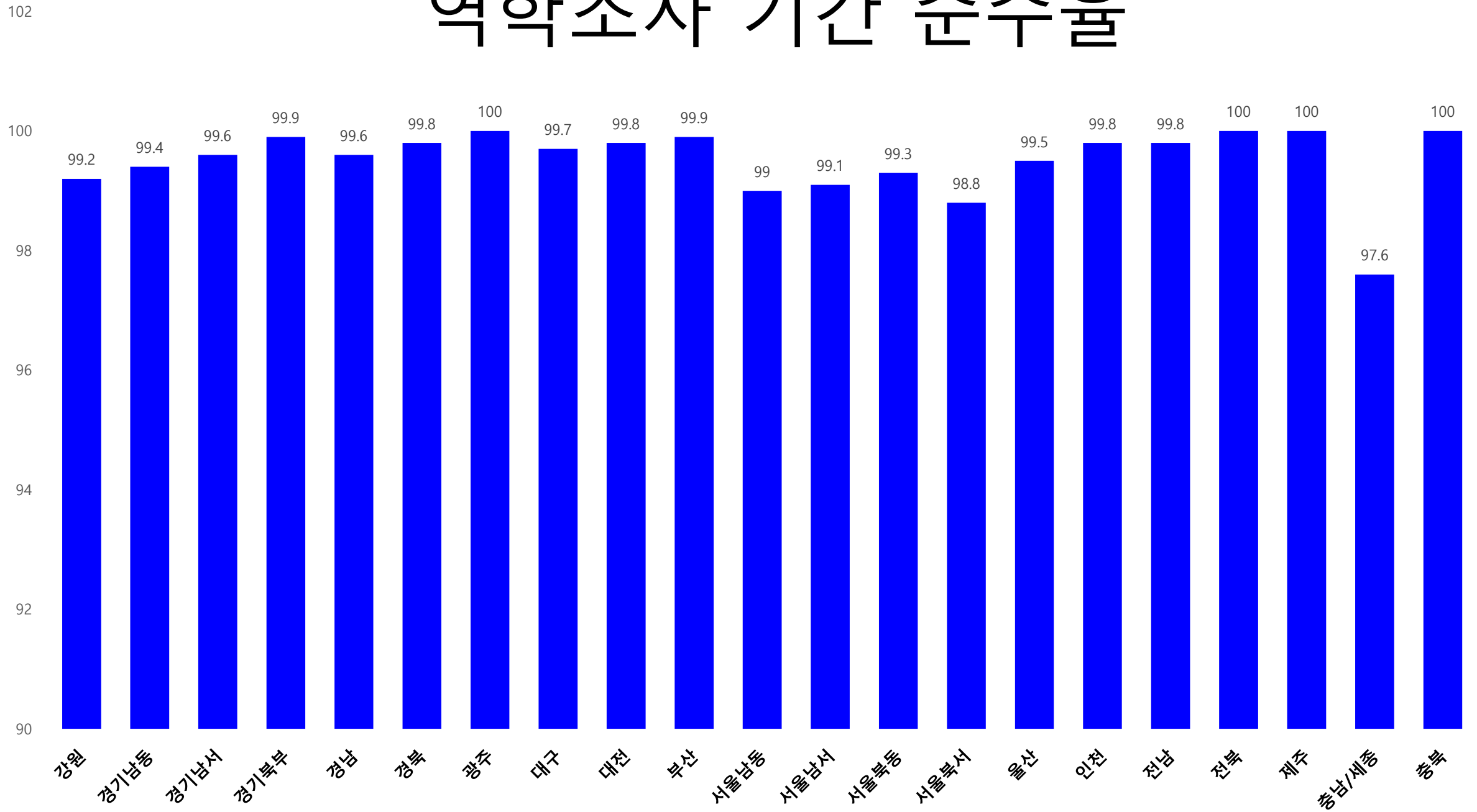
[doi.org/10.1371/journal.pone.0068102](https://doi.org/10.1371/journal.pone.0068102)



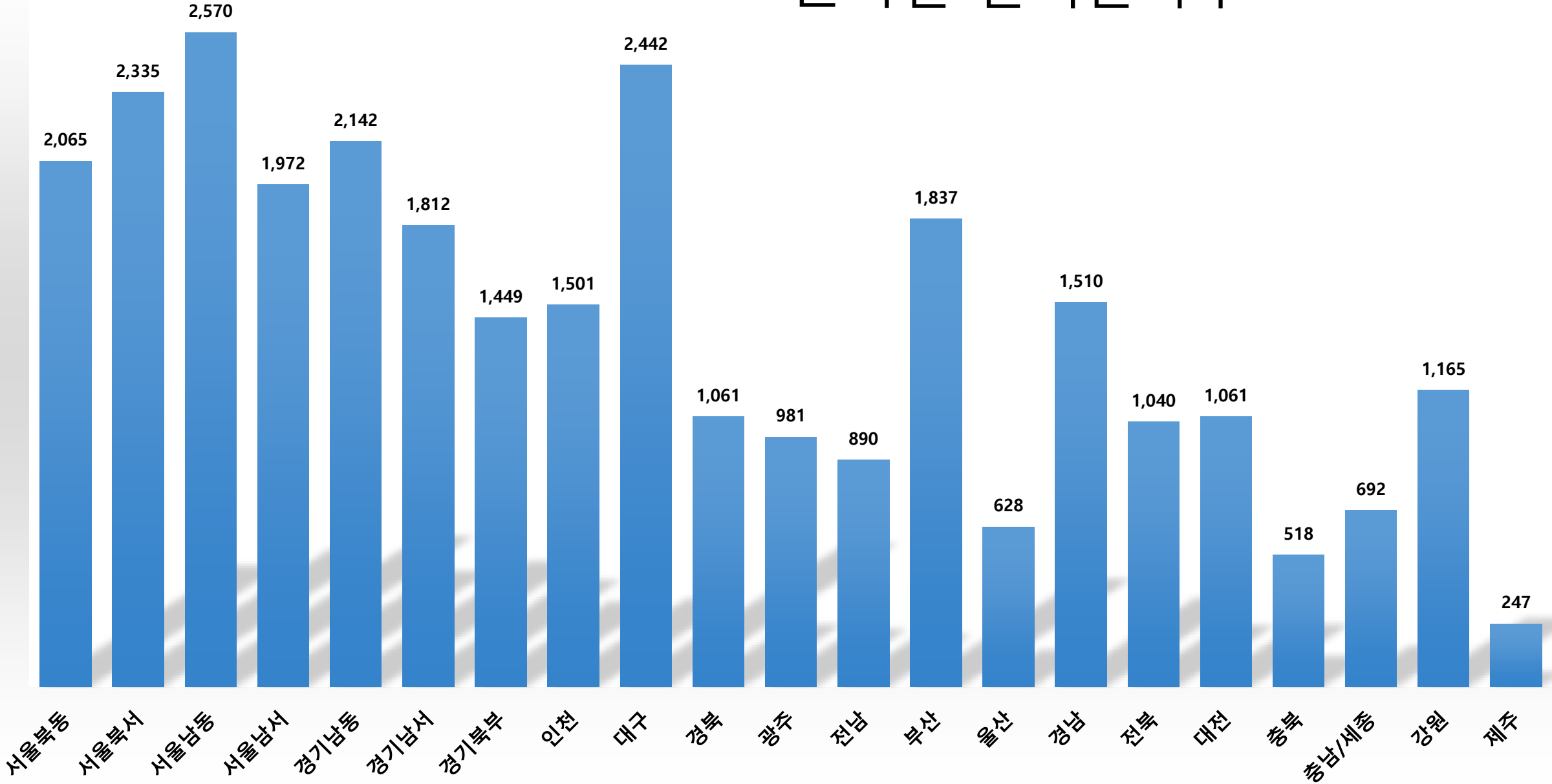
# 역학조사 기간 준수율



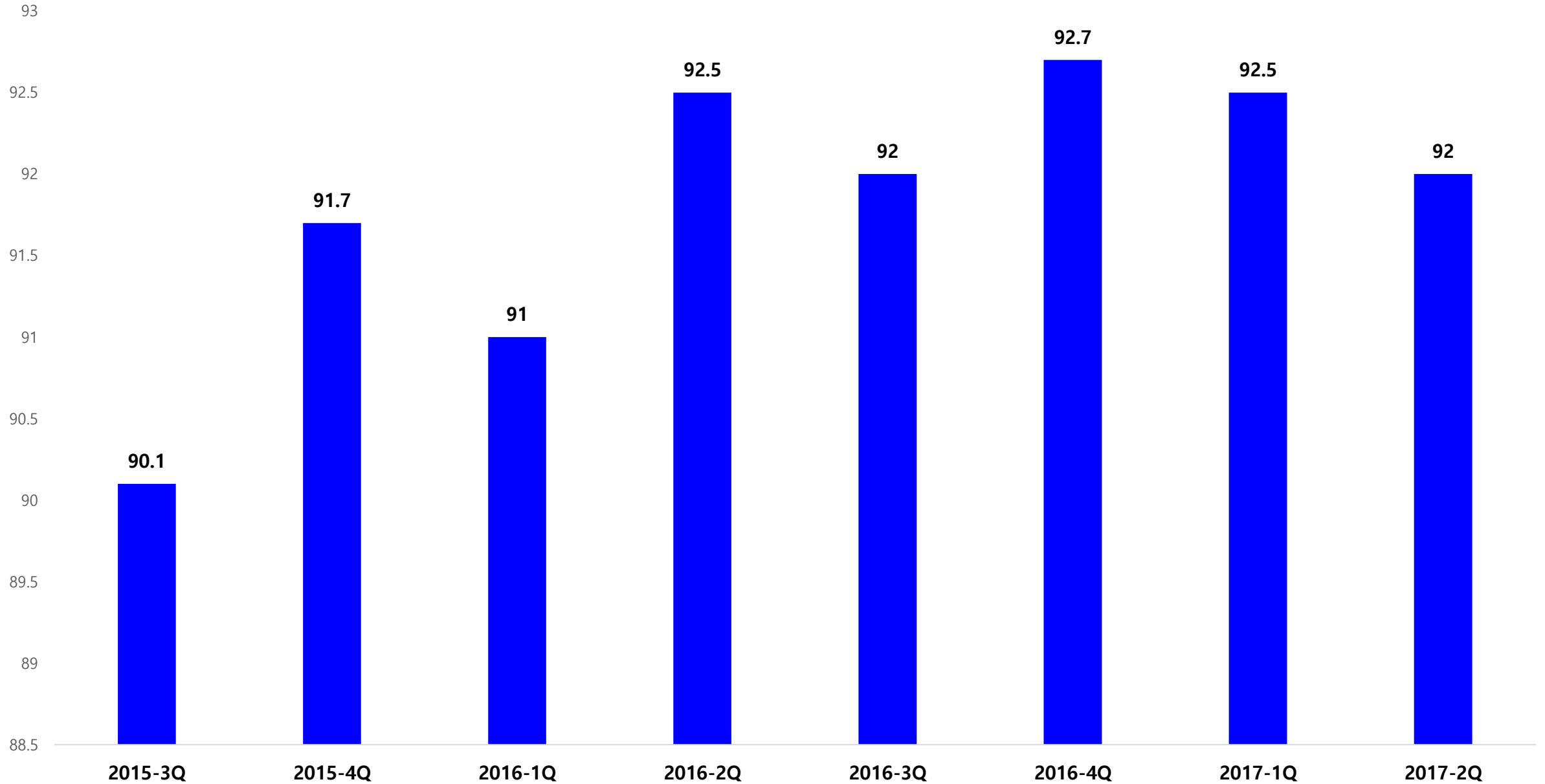
# 역학조사 기간 준수율



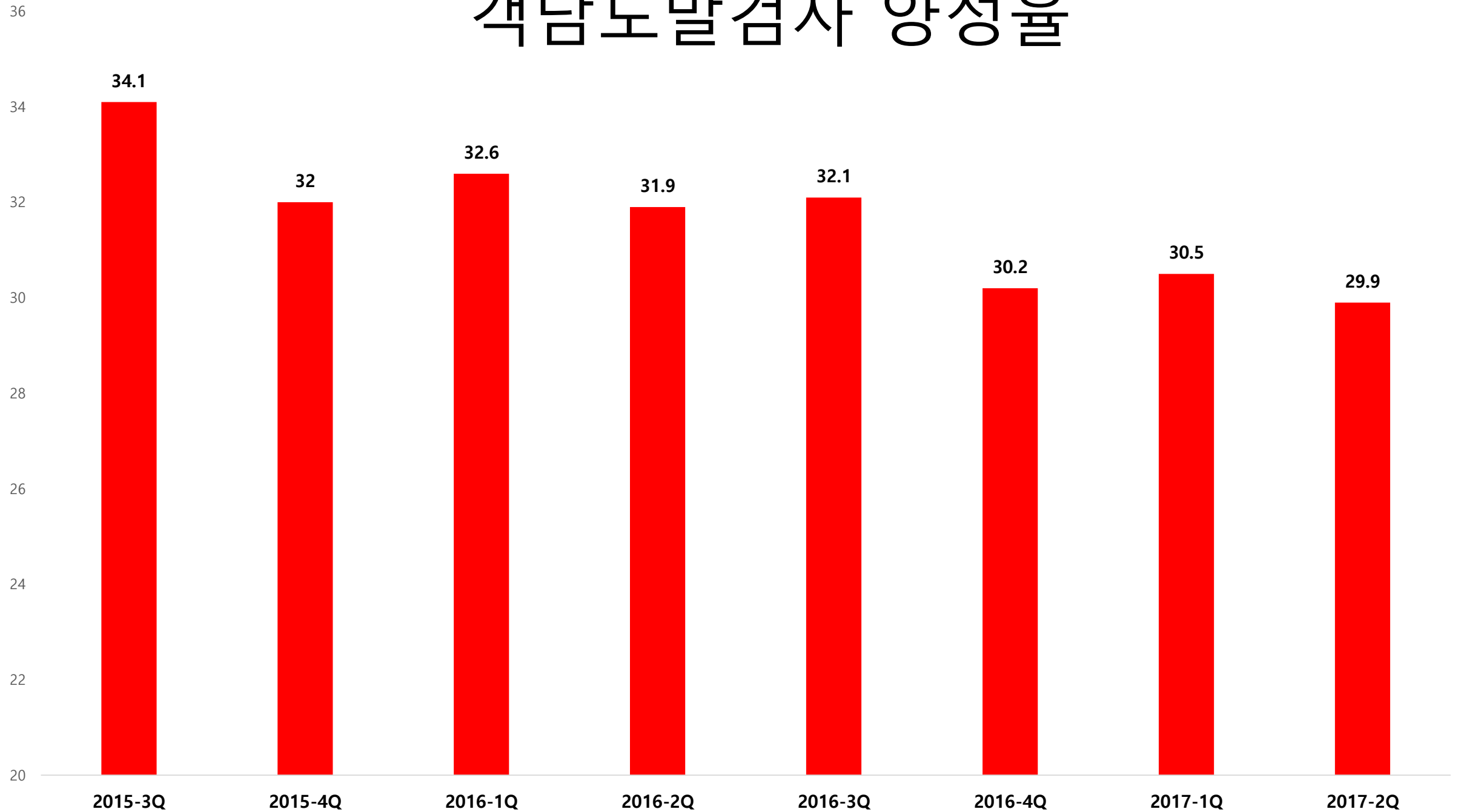
# 권역별 결핵환자수



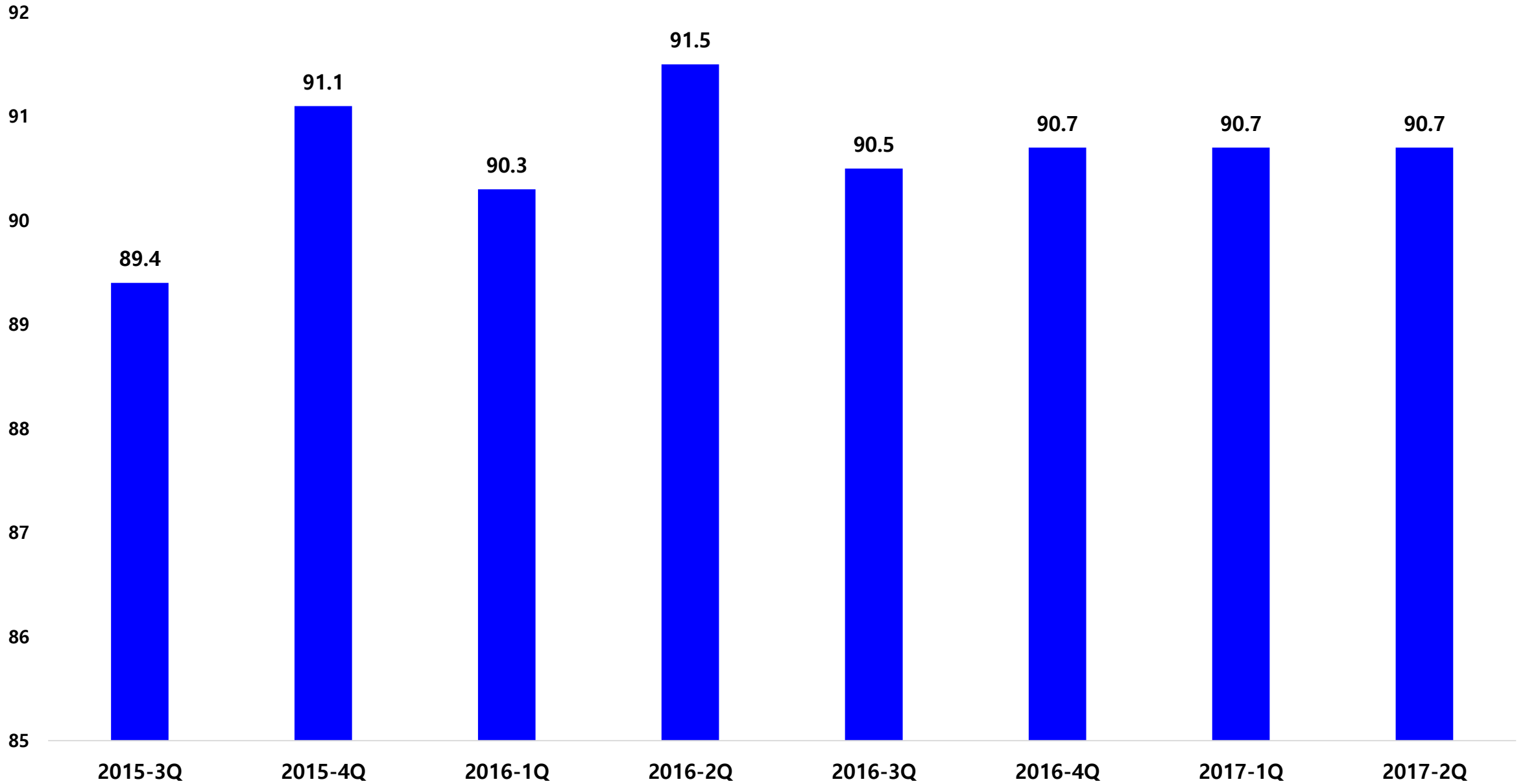
# 객담도말검사 시행율



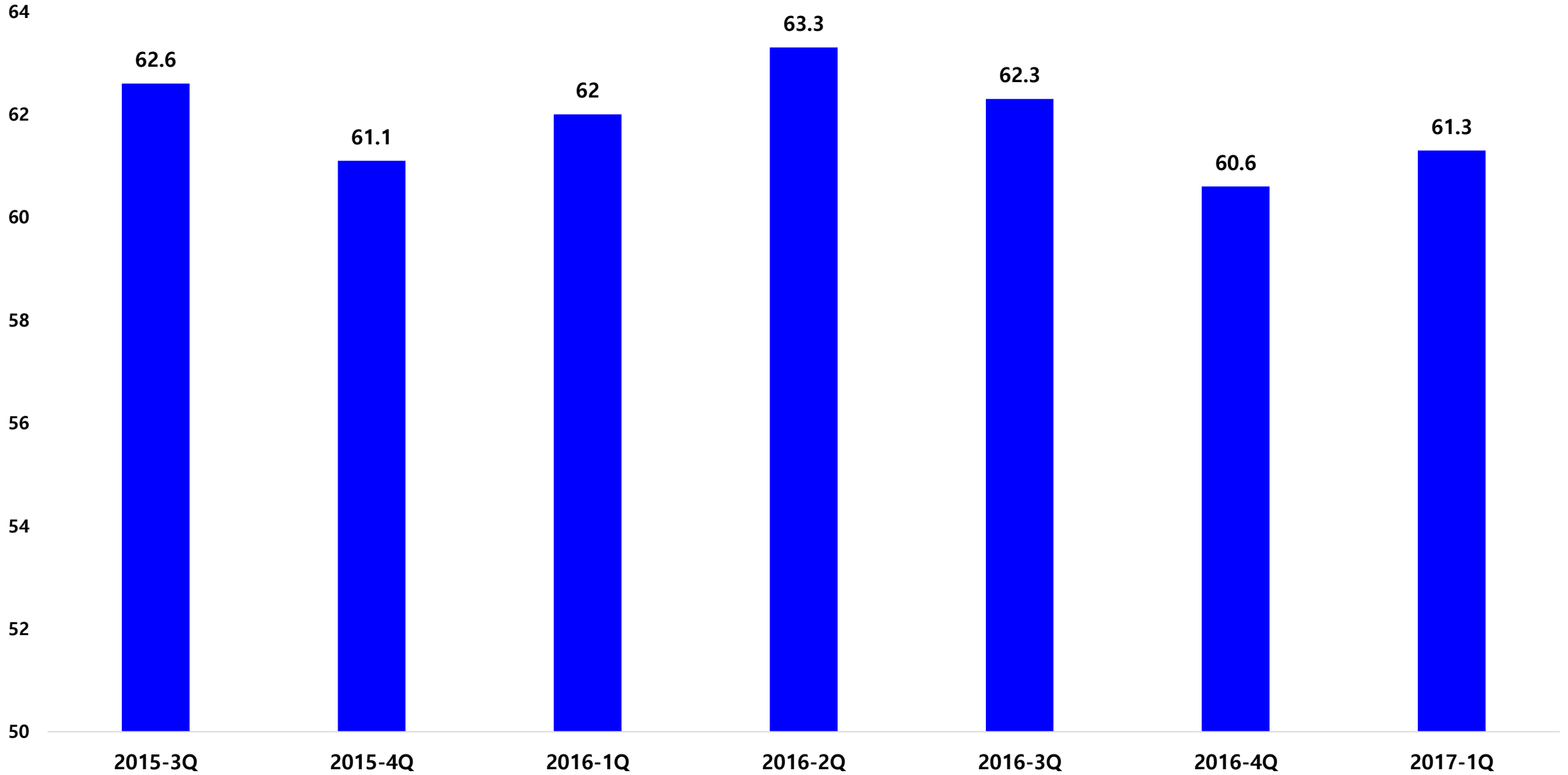
# 객담도말검사 양성율



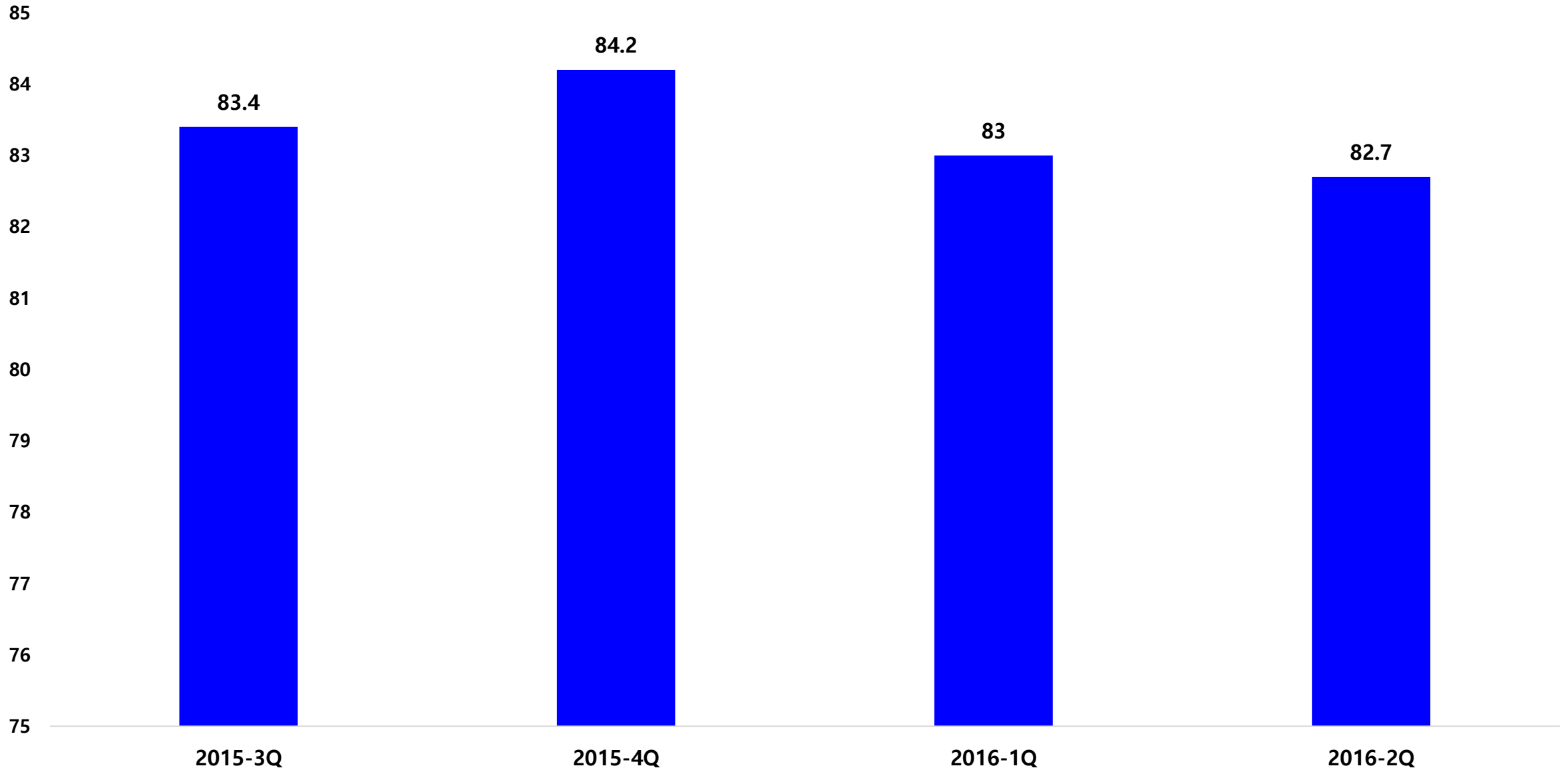
# 객담배양검사 시행율



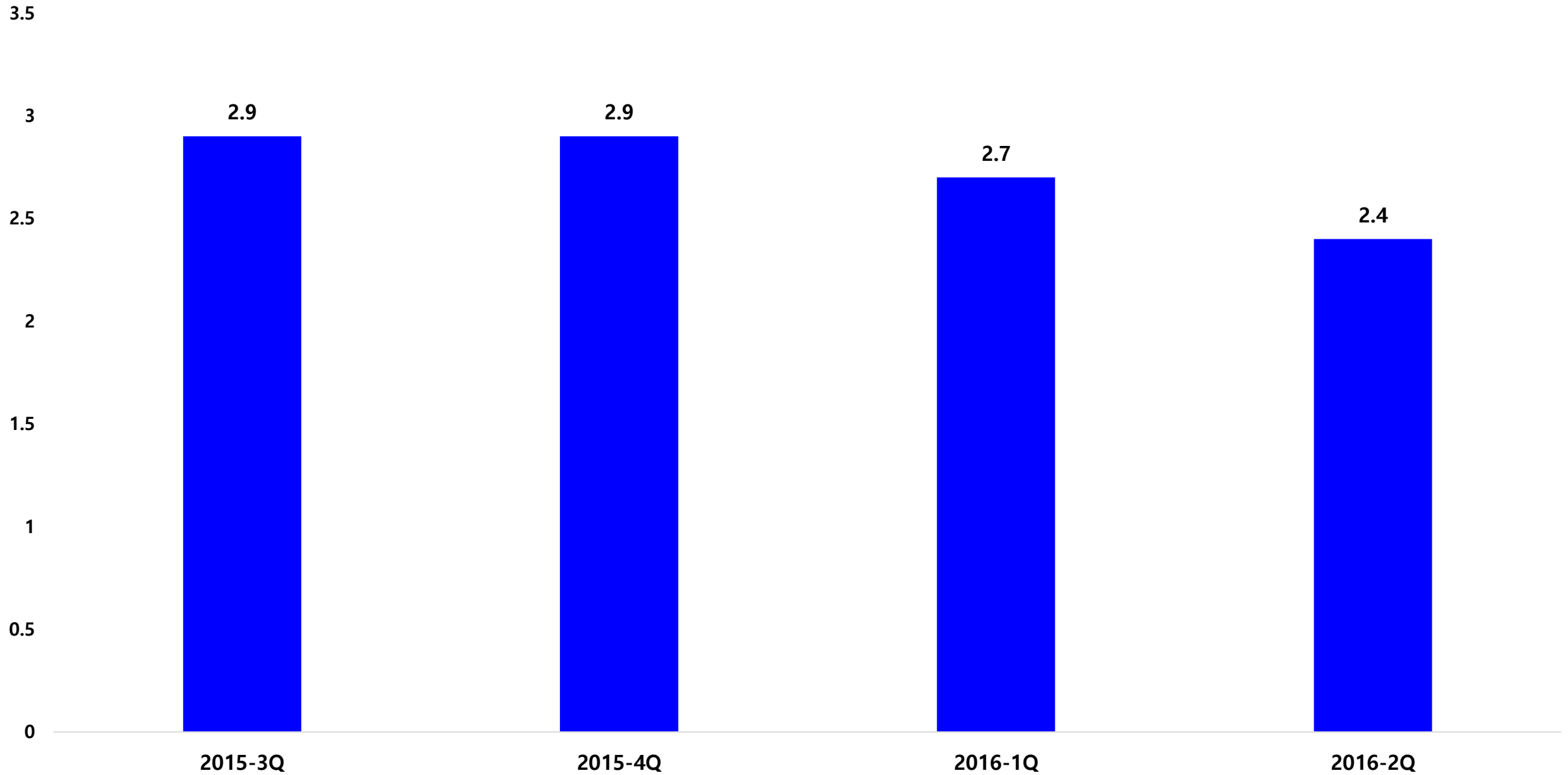
# 객담배양검사 양성율



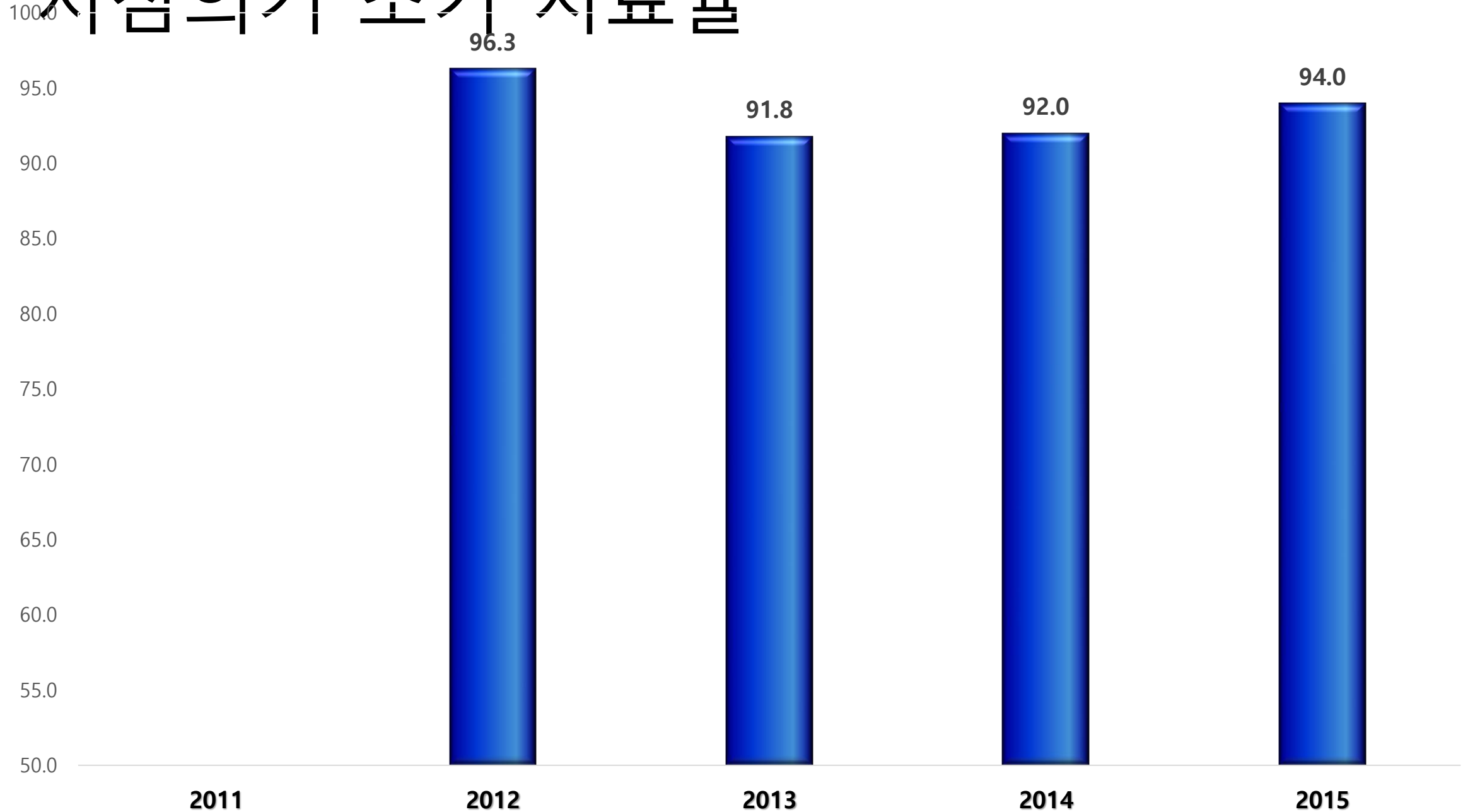
# 도말양성환자 치료 성공율



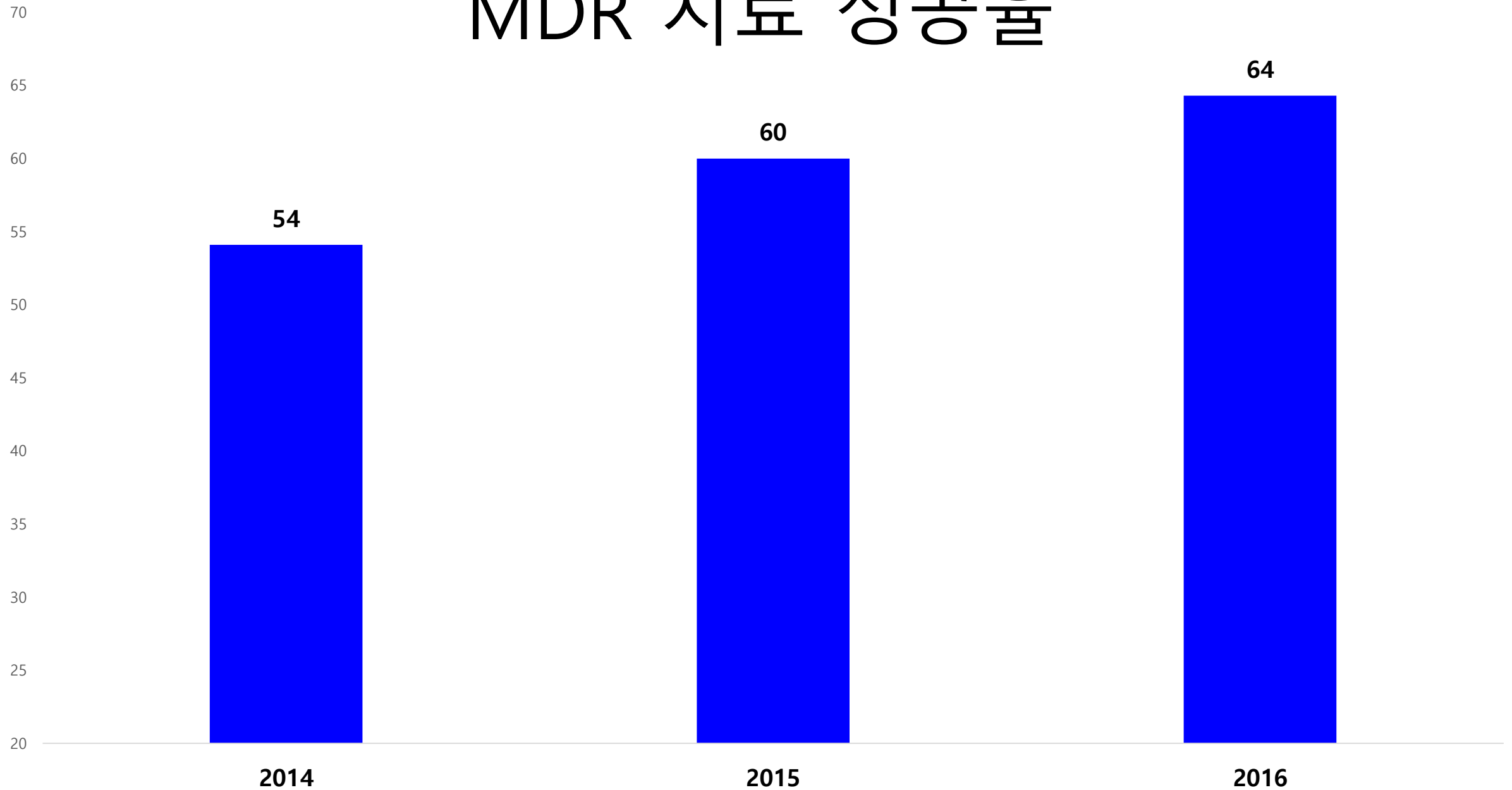
# 도말양성환자 치료 중단율



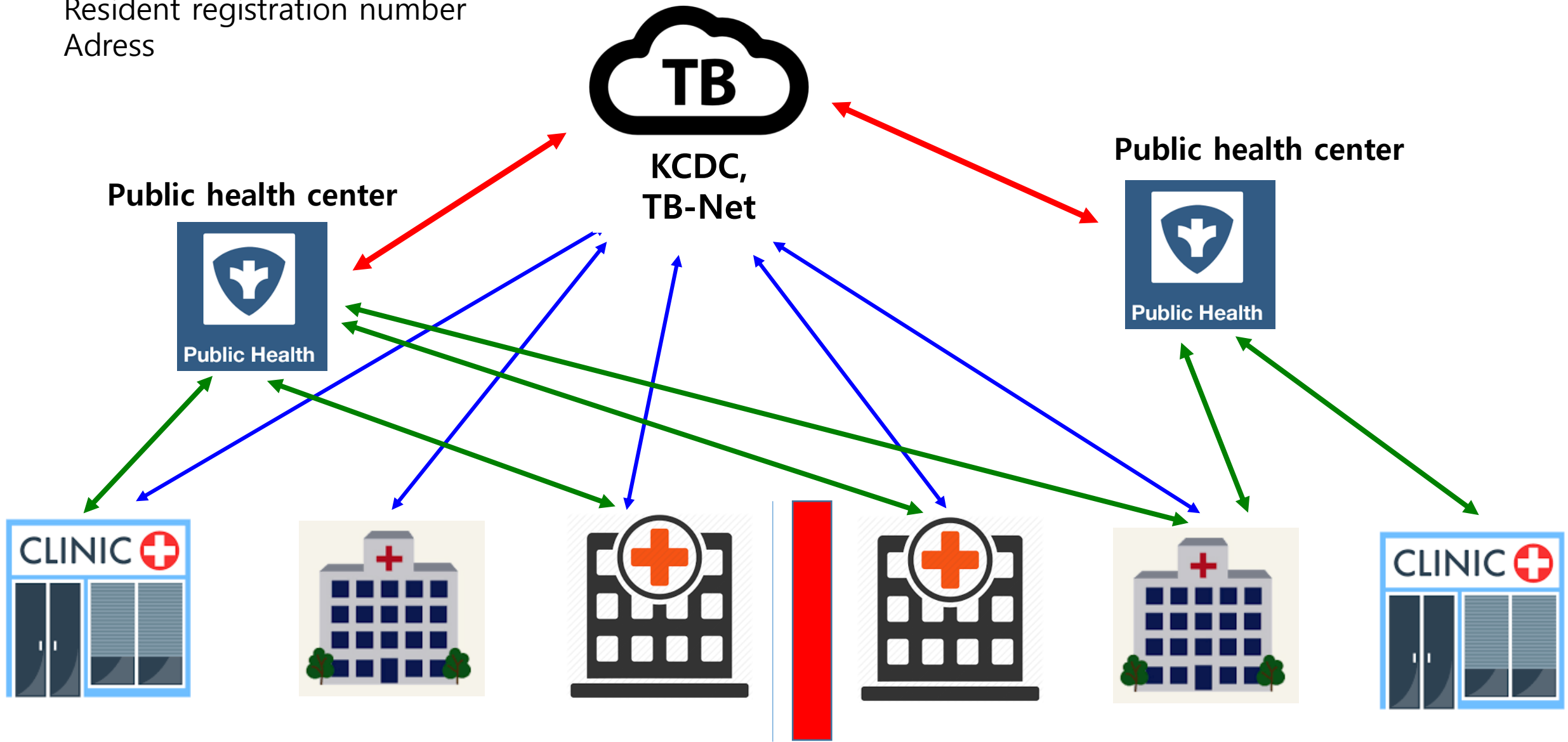
# 지침의거 초기 치료율



# MDR 치료 성공율

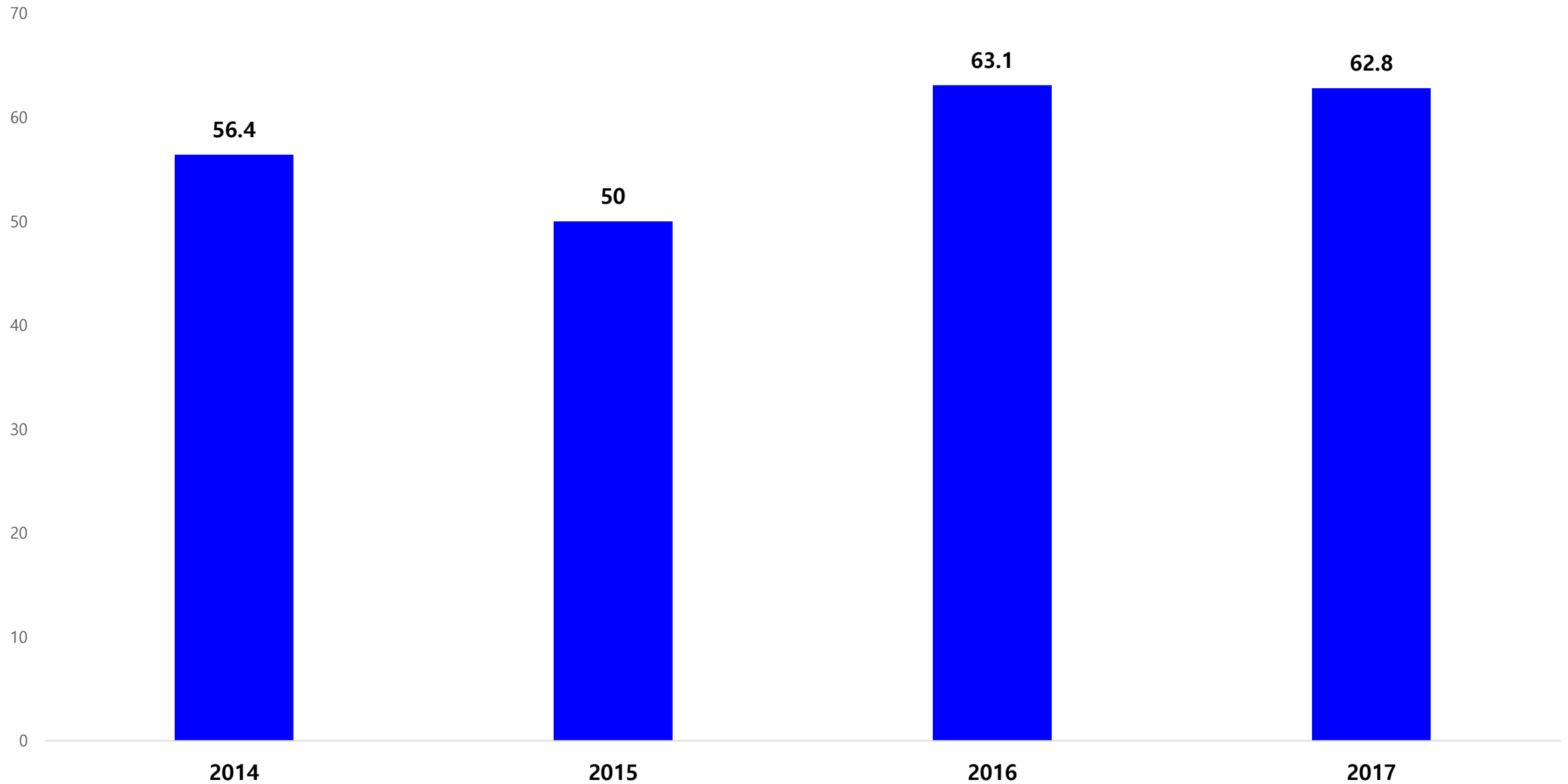


Resident registration number  
Address

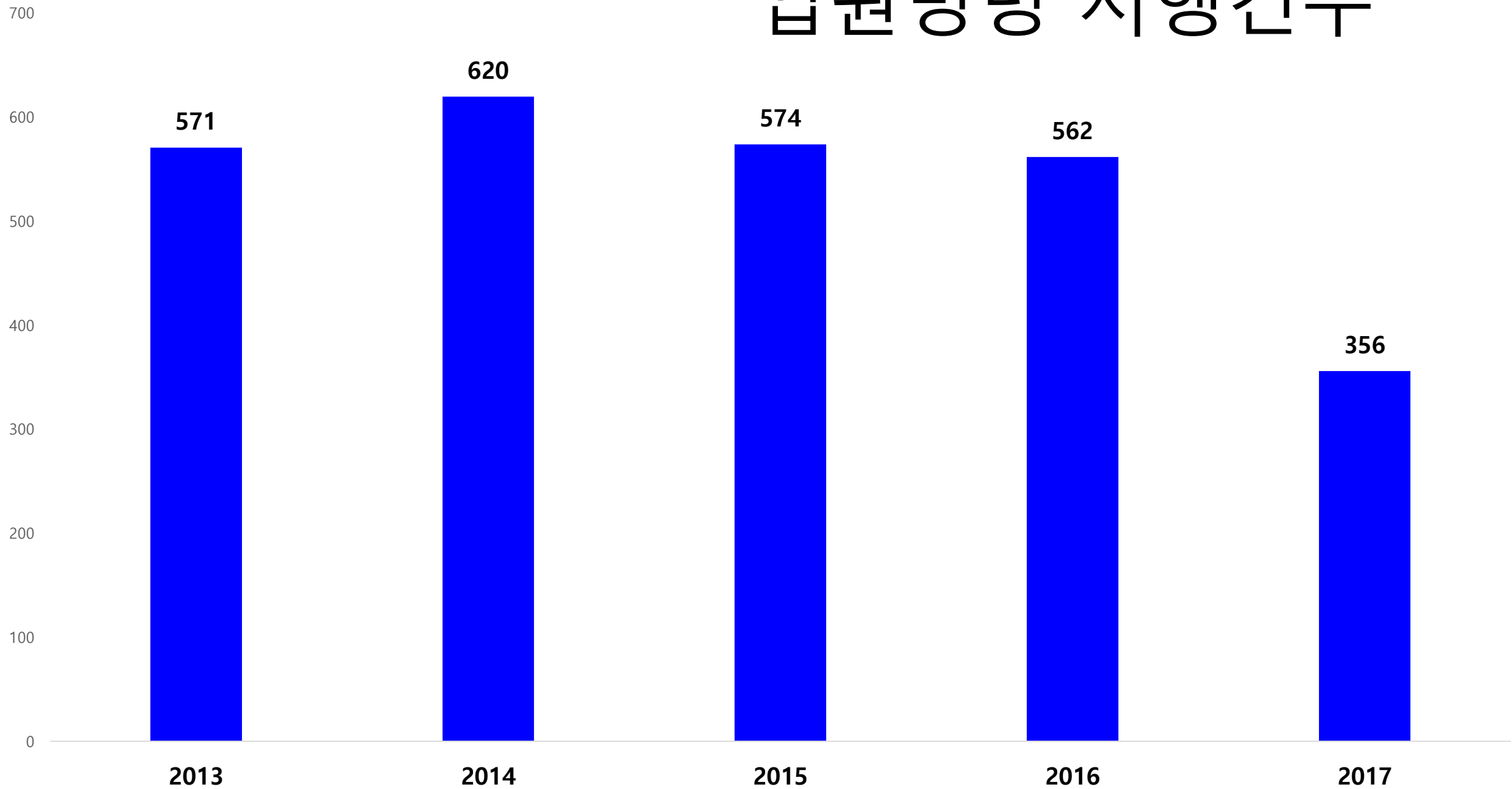


Double check, monitoring of TB patients. Health care center & Hospital (PPM TB special nurse)

# 비순응 결핵환자 관리율



# 입원명령 시행건수



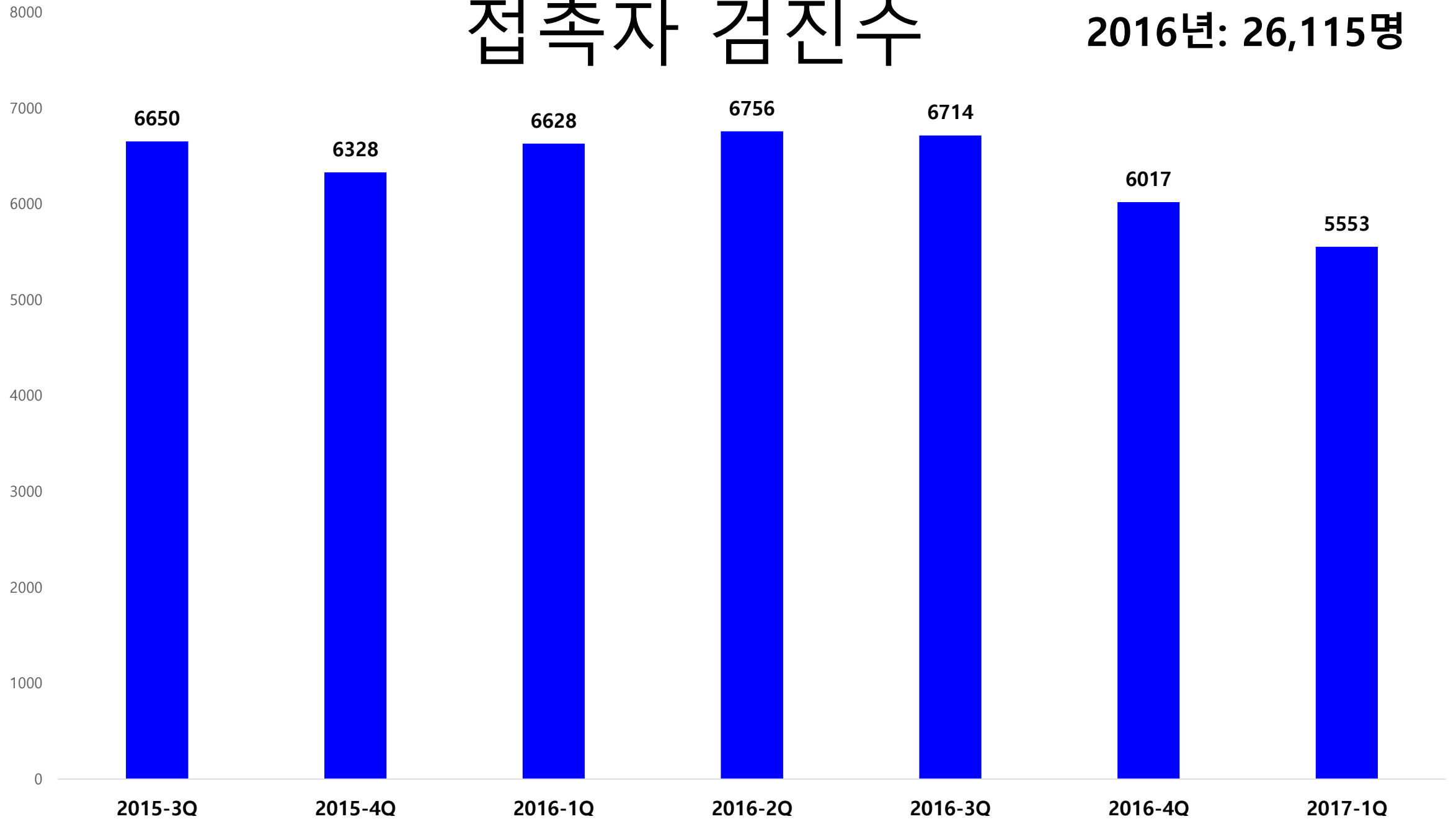
2017년도 건수는 2분기까지 자료임

# 잠복결핵 검진 (LTBI surveillance)

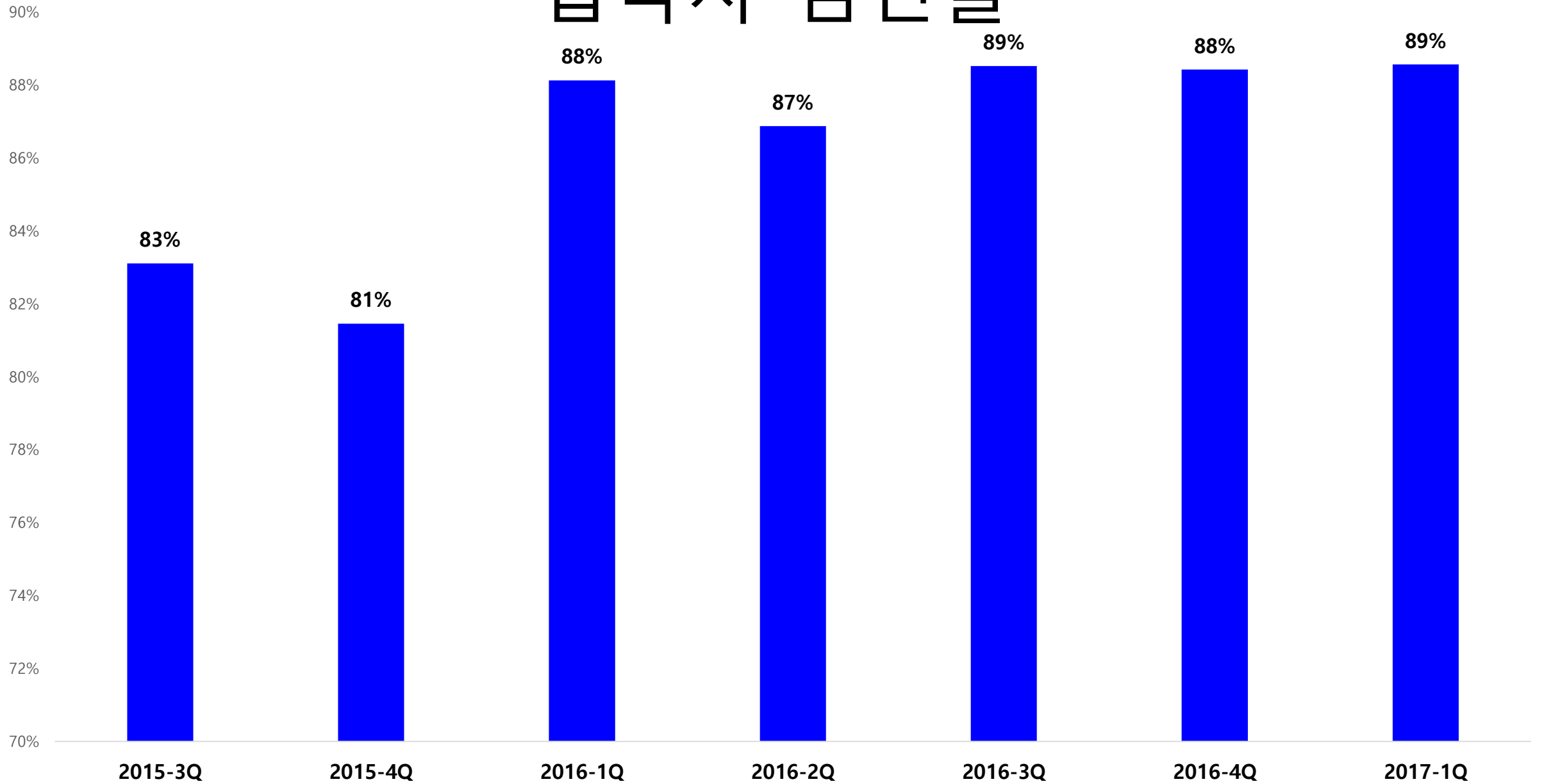
- **Close contact** : definition
- 8 hours/day for 3 days or **total 40 hours**
- in same close space,
- family member or workplace person
  
- Chest X-ray, IGRA or PPD skin test

# 접촉자 검진수

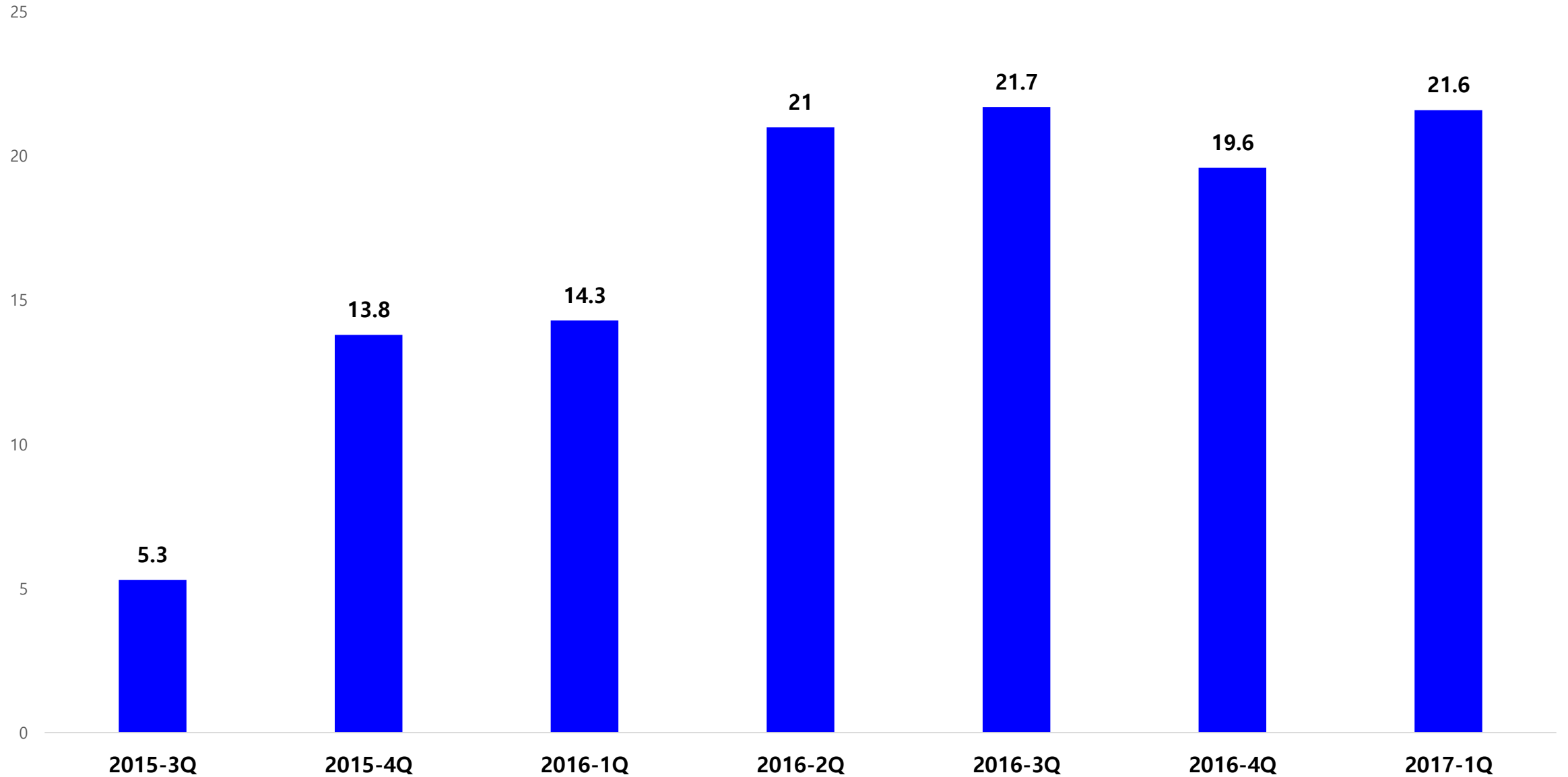
2016년: 26,115명



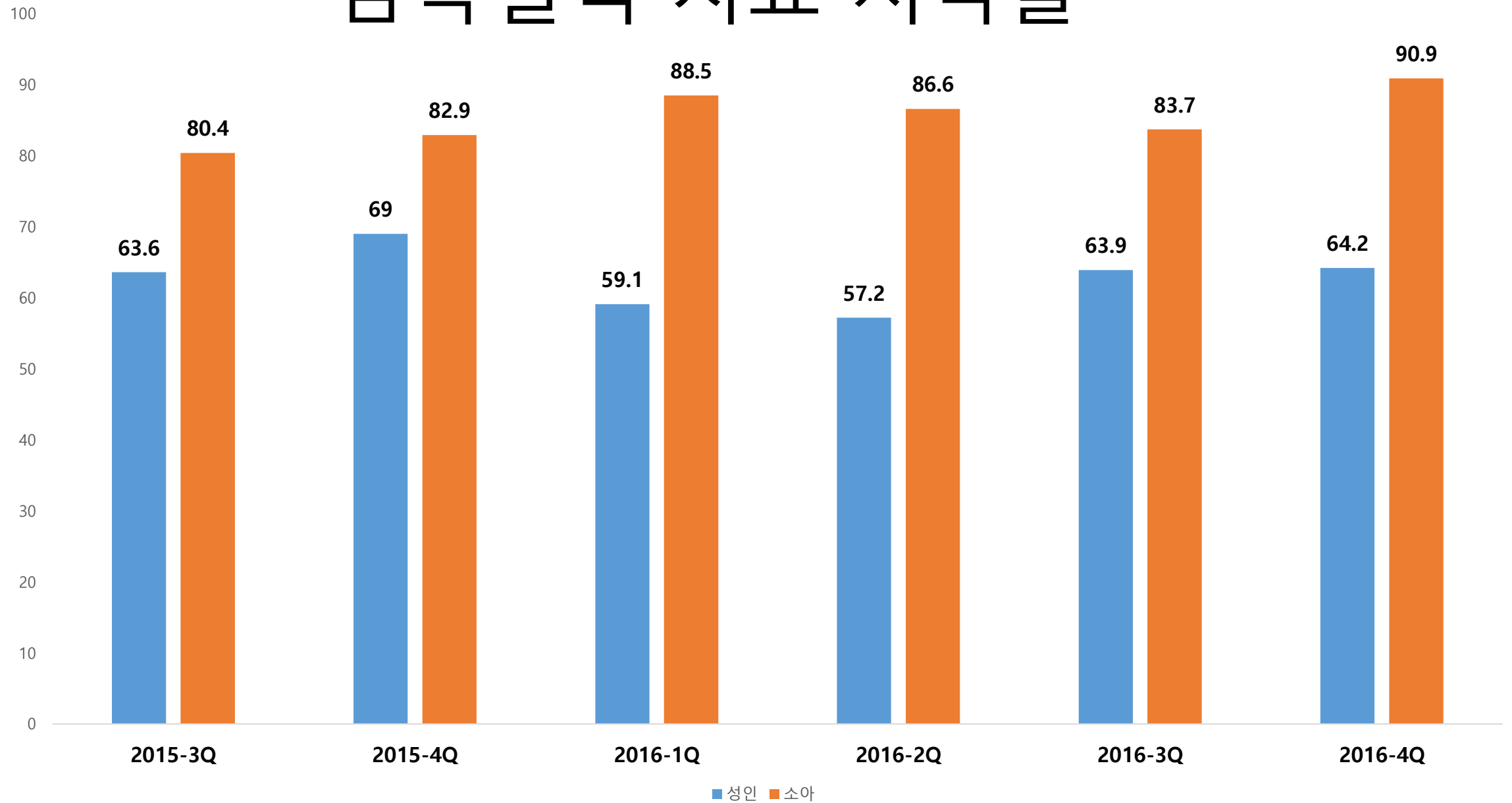
# 접촉자 검진율



# 잠복결핵 감염율(성인)

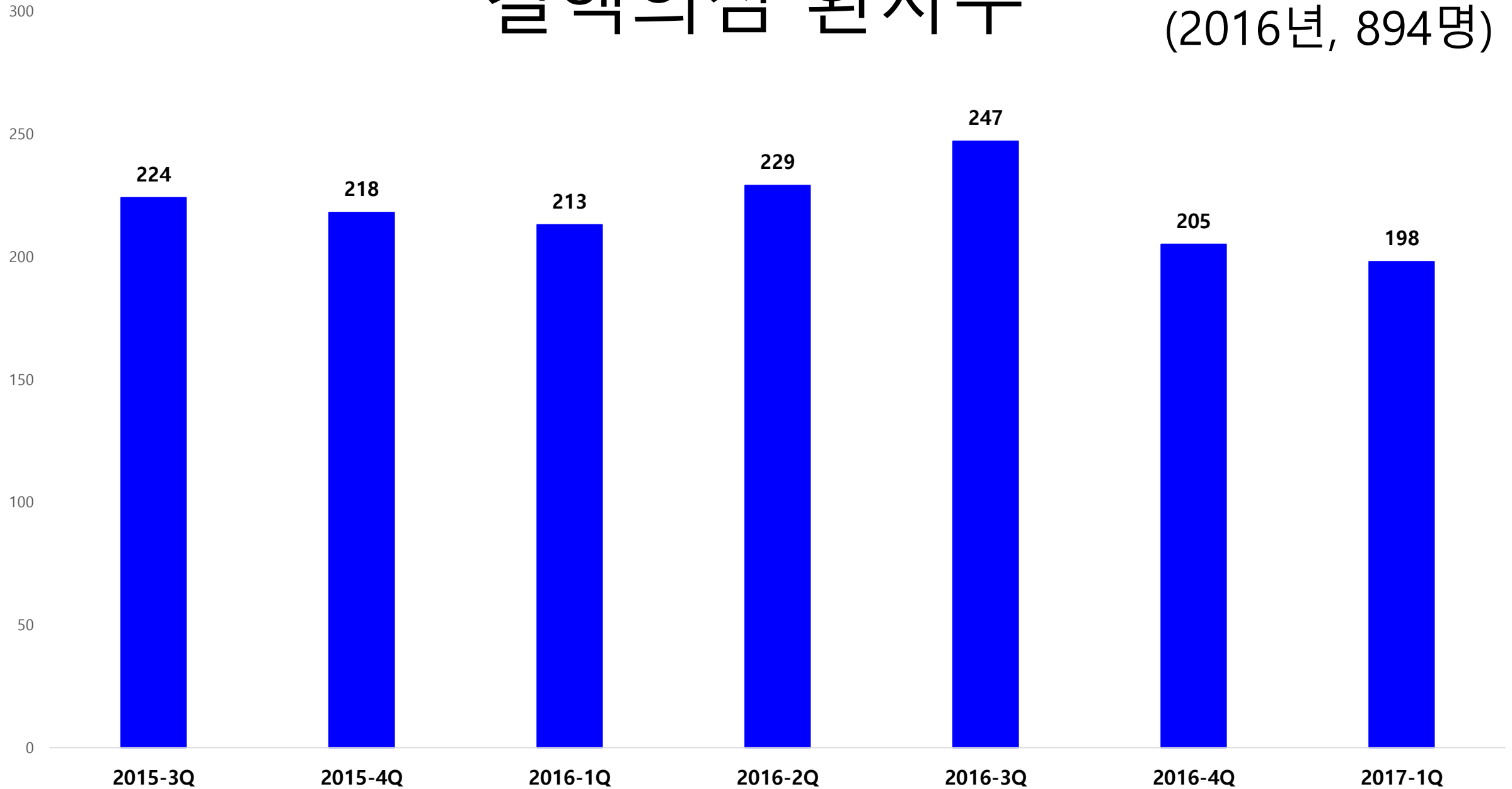


# 잠복결핵 치료 시작율

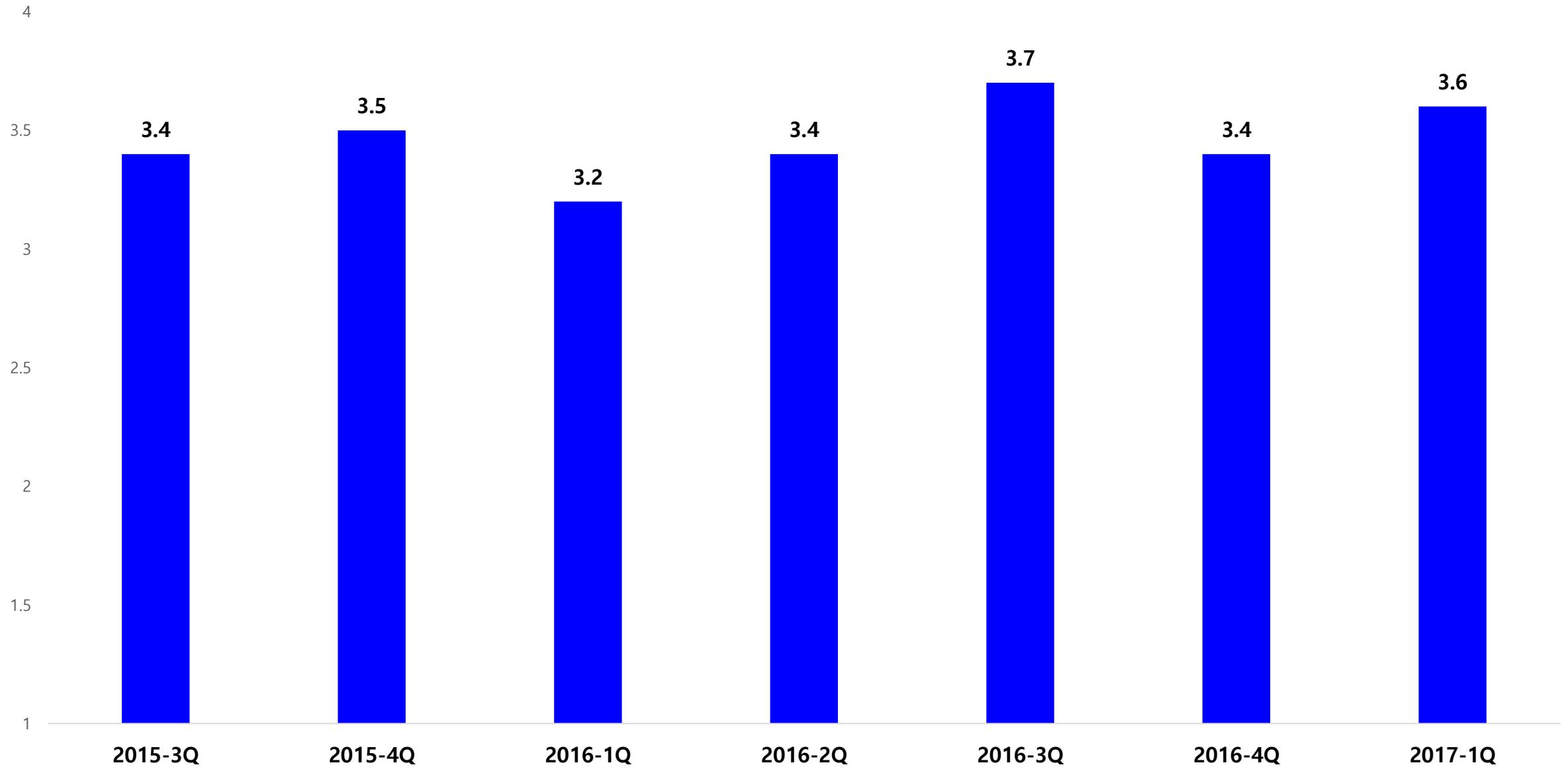


# 결핵의심 환자수

(2016년, 894명)



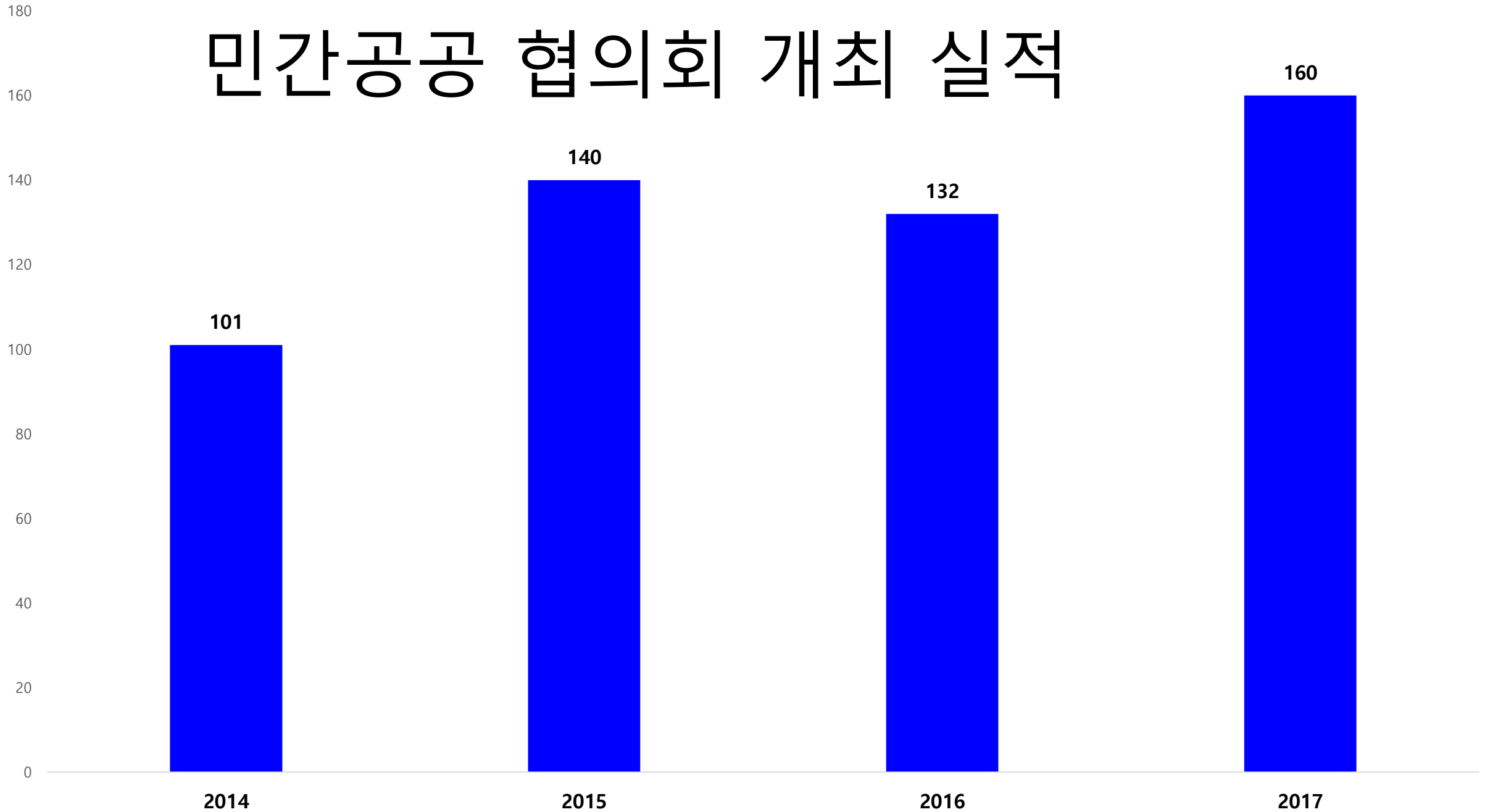
# 결핵의심 및 환자 비율

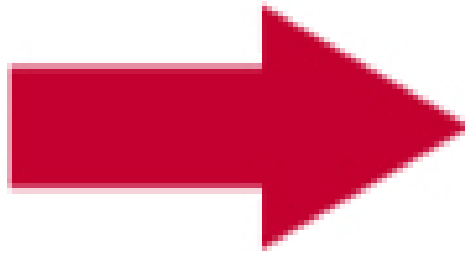


# 잠복결핵 검진 결과 2016

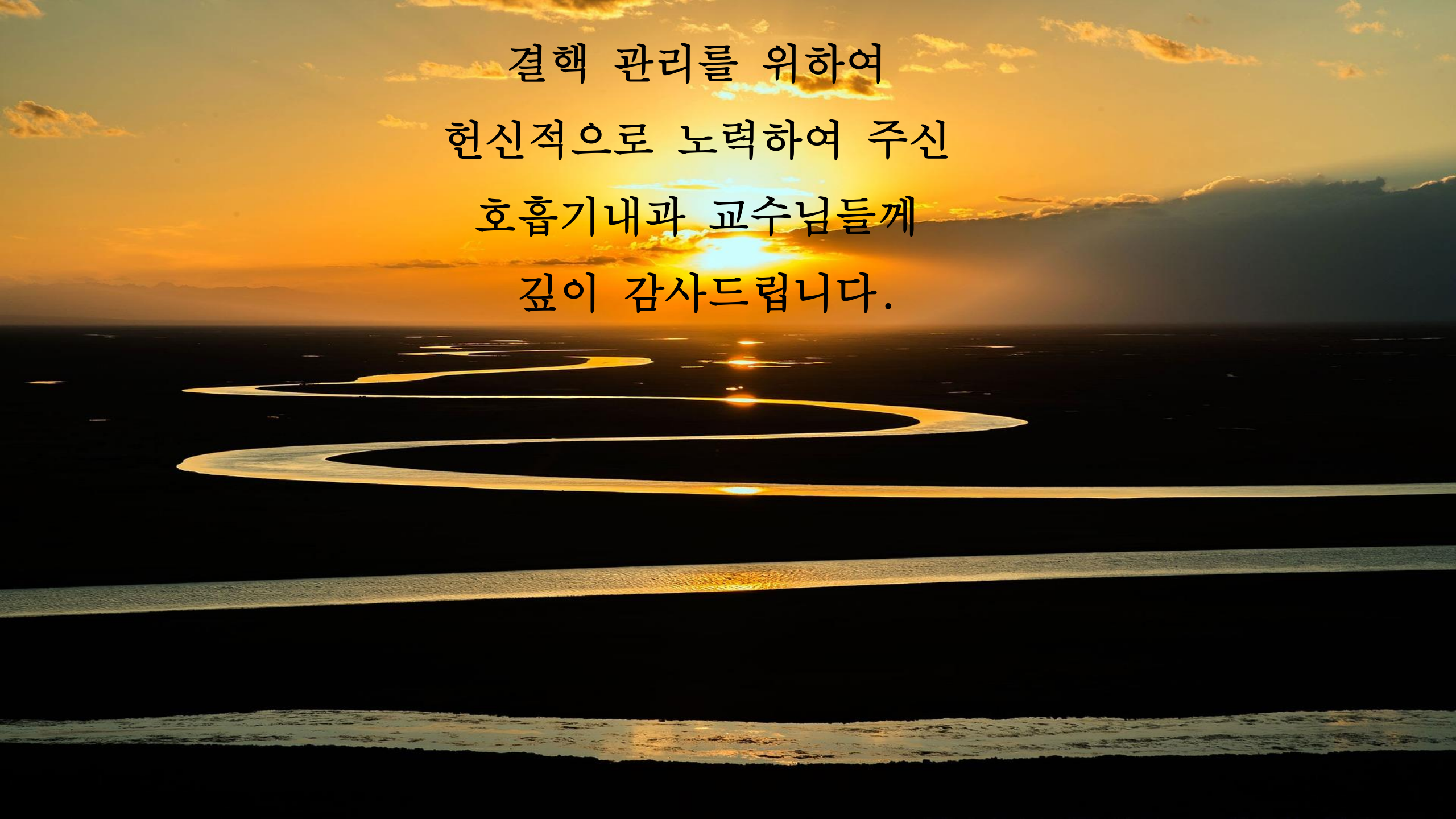
- 잠복결핵 검진수 26,183명
- 결핵 환자 발견: 151명
- 잠복 결핵: 5200명 -> 치료: 발병 예방 416명

# 민간공공 협의회 개최 실적





**END  
TB**



결핵 관리를 위하여  
헌신적으로 노력하여 주신  
호흡기내과 교수님들께  
깊이 감사드립니다.