

わが国における最近の結核疫学の動向

Current epidemiological trend of tuberculosis in Japan

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Int J Tuberc Lung Dis. 2002 ; 6(5): 415-423. に掲載された論文の要旨と図表を掲載したものです。

要旨：

[目的] わが国の最近の結核疫学動向を観察し、結核罹患率、死亡率の減少鈍化に影響している要因を明らかにすること。

[デザイン] 結核届出率および死亡率を性、年齢、暦年、出生コホート別に分析した記述疫学。

[結果] わが国の結核罹患率は1980年あたりから減少傾向が鈍化した。一方、1950年以前に生まれた集団の罹患率は、1980年あたりから加齢とともに横ばい状況となった。

結核死亡率の減少傾向にも、近年鈍化が観察されているが、罹患率よりは鈍化開始の時期は遅く、程度も小さかった。結核による死亡の多くは高齢者であるが、中年男性で、最近死亡率の減少傾向が低下してきた。一方、出生コホート別の観察では、死亡率は近年加齢に伴い上昇する傾向にあった。

[考察] 最近の罹患率の減少速度の鈍化の主な要因は、過去に結核に感染し、生物学的な老化が近づくにつれ、結核を発症する可能性が高くなる高齢者集団の人口が増加したことにある。他の要因としては、特に都市部で社会経済的弱者に結核問題が次第に偏在化してきていること、行動様式の変化が、患者発見における遅れを引き起こしていること、が挙げられる。

[キーワード] tuberculosis; notification; incidence; mortality; cohort; Japan

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图表：

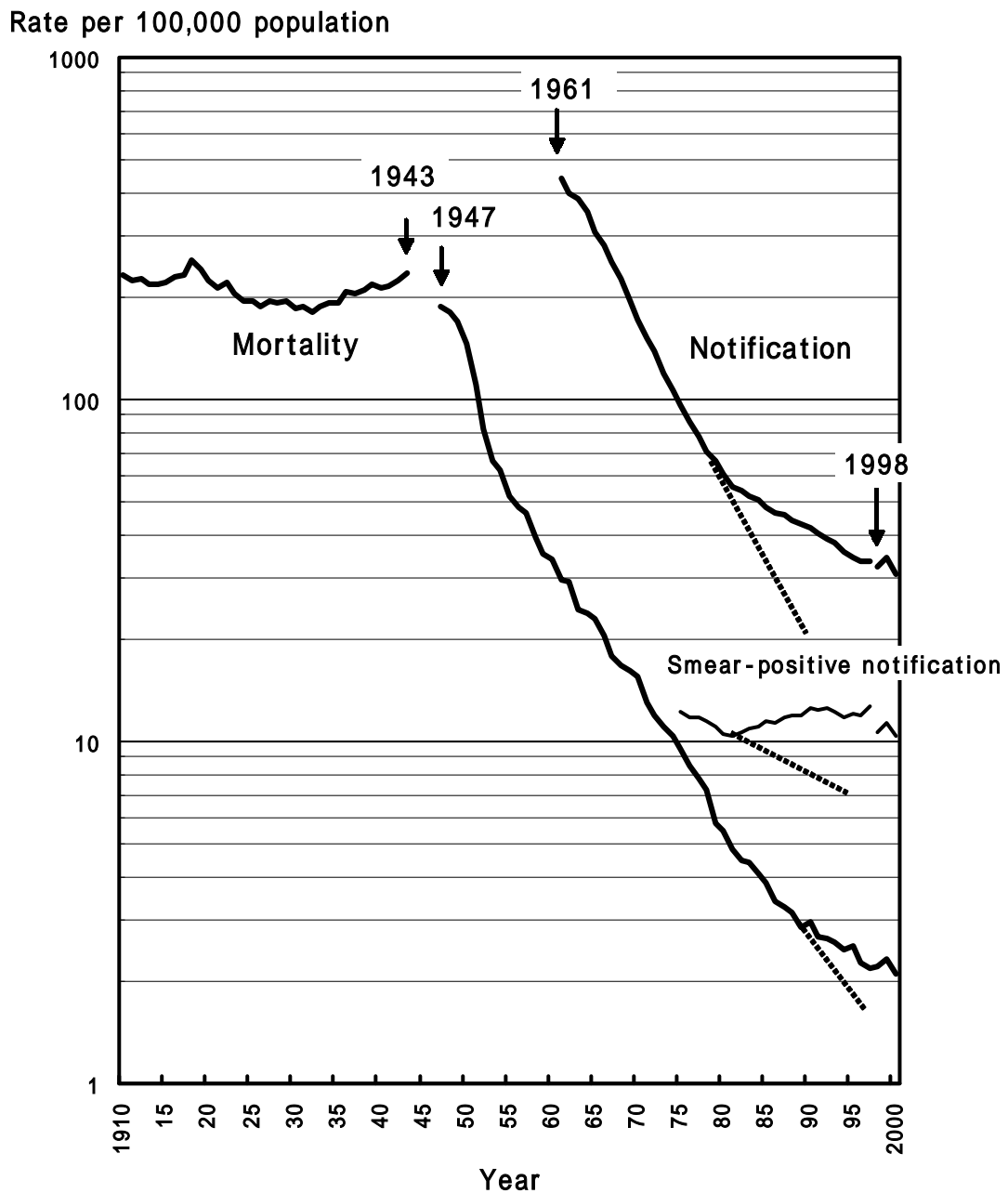


Figure 1 Trends of TB mortality rates for all forms, and notification rates for all forms and smear-positive pulmonary TB in Japan. Mortality = all forms of TB in 1910-2000; Notification = all forms of TB in 1961-2000 (new criteria in 1998-2000); Smear-positive notification = all forms of TB in 1975-78, pulmonary TB in 1979-1997, and sputum smear-positive pulmonary TB (new criteria) in 1998-2000; the TB emergency was declared in 1999.

Table Tuberculosis mortality rates, and ratios to the rates in 1910 and 1950 in selected countries, 1910-1990

Year	Japan		France		U.S.A.		Netherlands	
	rate*	ratio	rate*	ratio	rate*	ratio	rate*	ratio
1910	230.2	100	215.0	100	153.8	100	155.3	100
1920	223.7	97	184.0	86	113.1	74	146.1	94
1930	185.6	81	158.0	73	71.1	46	74.6	48
1940	212.9	92	140.0	65	45.8	30	43.7	28
1950	146.4	100	57.9	100	22.5	100	19.0	100
1960	34.2	23	22.0	38	6.1	27	2.9	15
1970	15.4	11	8.2	14	2.5	11	1.2	6
1980	5.5	4	3.0	5	0.9	4	0.3	2
1990	3.0	2	1.7	3	0.7	3	0.1	1

* per 100,000 population.

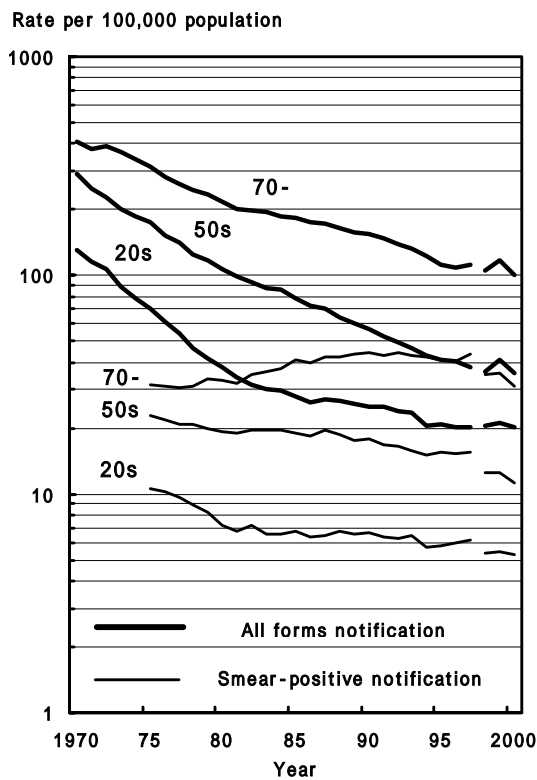


Figure 2 Trends of notification rates for all forms of TB and smear-positive TB in selected age groups in Japan, 1970-2000. Notification = all forms of TB in 1970-2000 (new criteria since 1998); Smear-positive notification = all forms of TB in 1975-1978, pulmonary TB in 1979-1997, and sputum smear-positive pulmonary TB (new criteria) in 1998-2000.

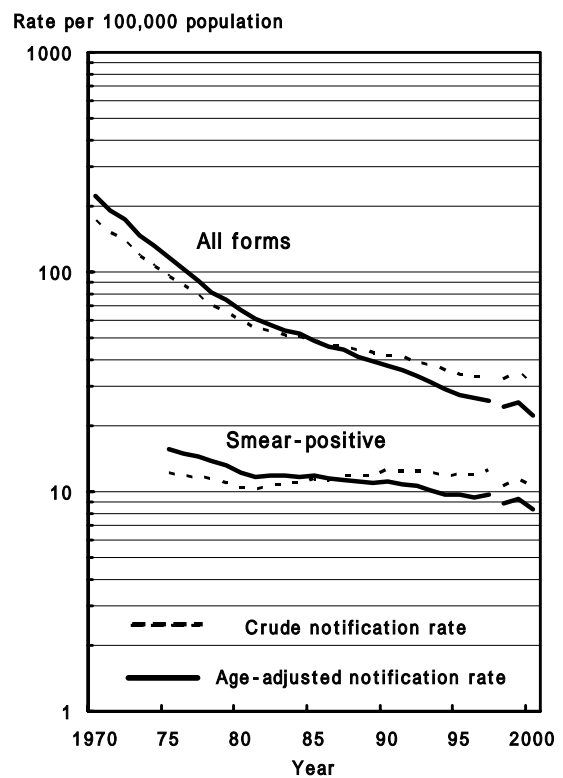


Figure 3 Trends of notification rates for all forms of TB and smear-positive TB in Japan, 1970-2000: comparison between crude and age-adjusted rates. All forms = all forms of TB in 1970-2000 (new criteria since 1998); Smear-positive = all forms of TB in 1975-1978, pulmonary TB in 1979-1997, and sputum smear-positive pulmonary TB (new criteria) in 1998-2000.

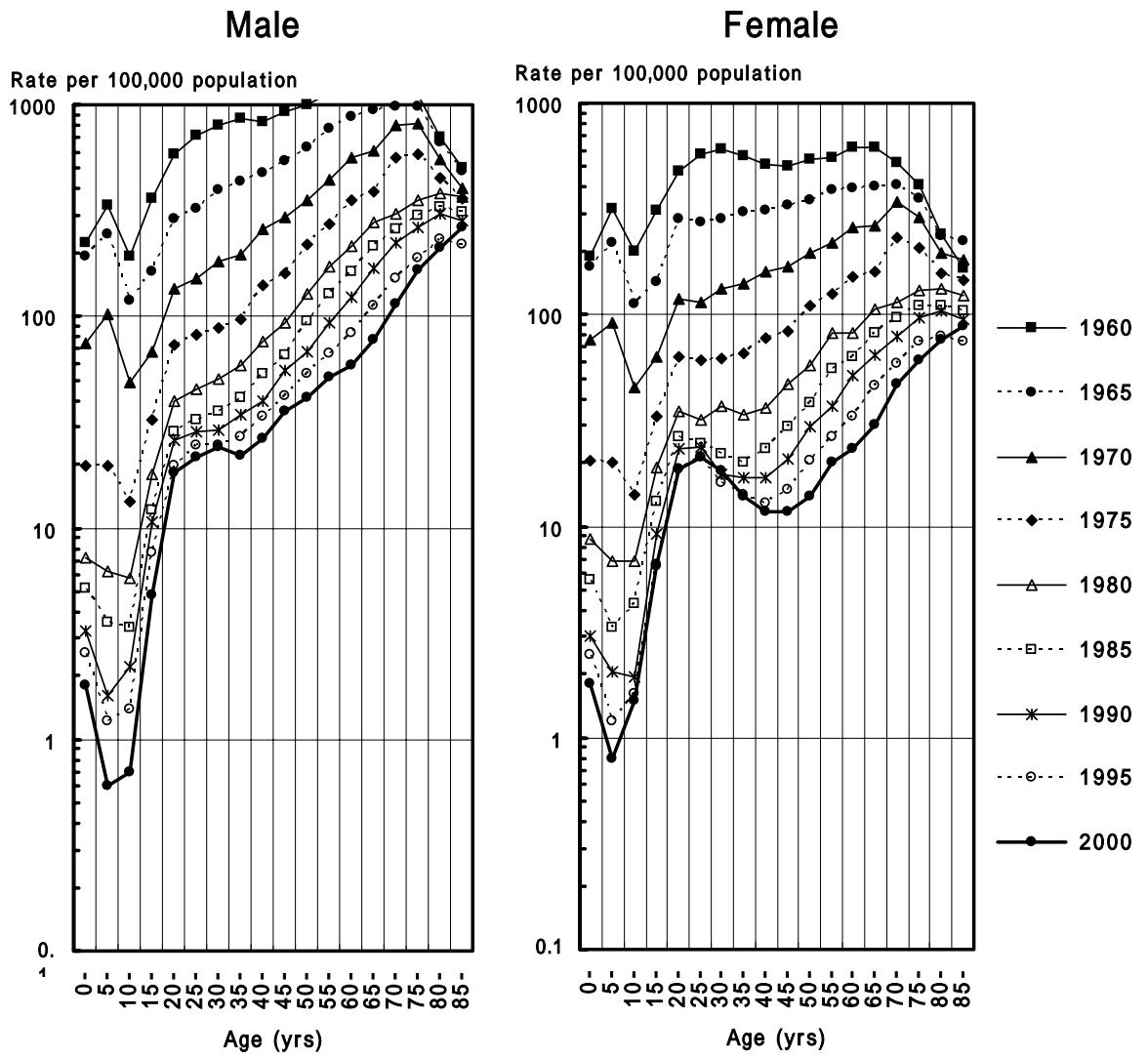


Figure 4 Trends of age-specific TB notification rates in Japan by sex, 1960-2000.

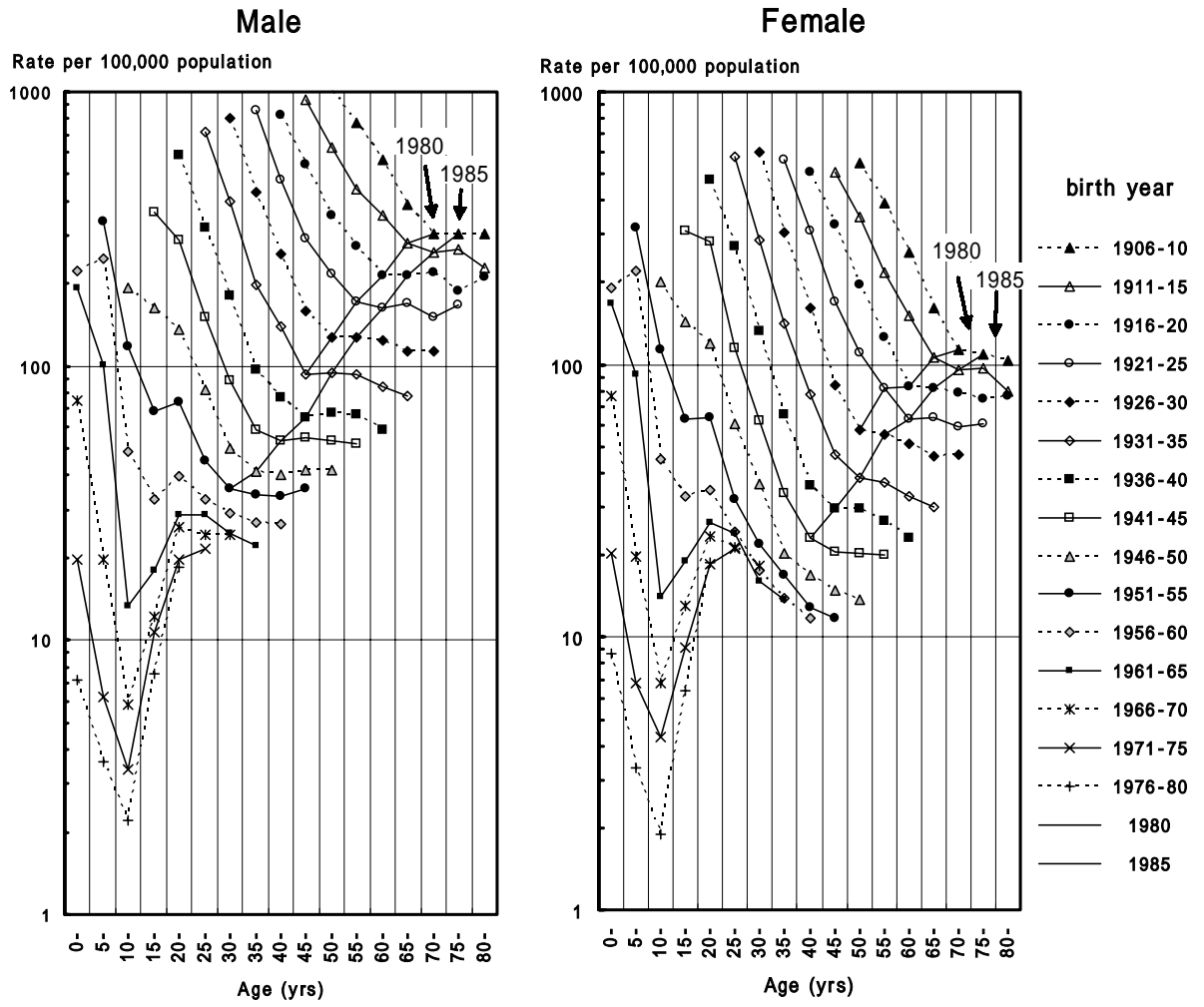


Figure 5 Trends of age-specific TB notification rates in Japan by birth cohort and sex.

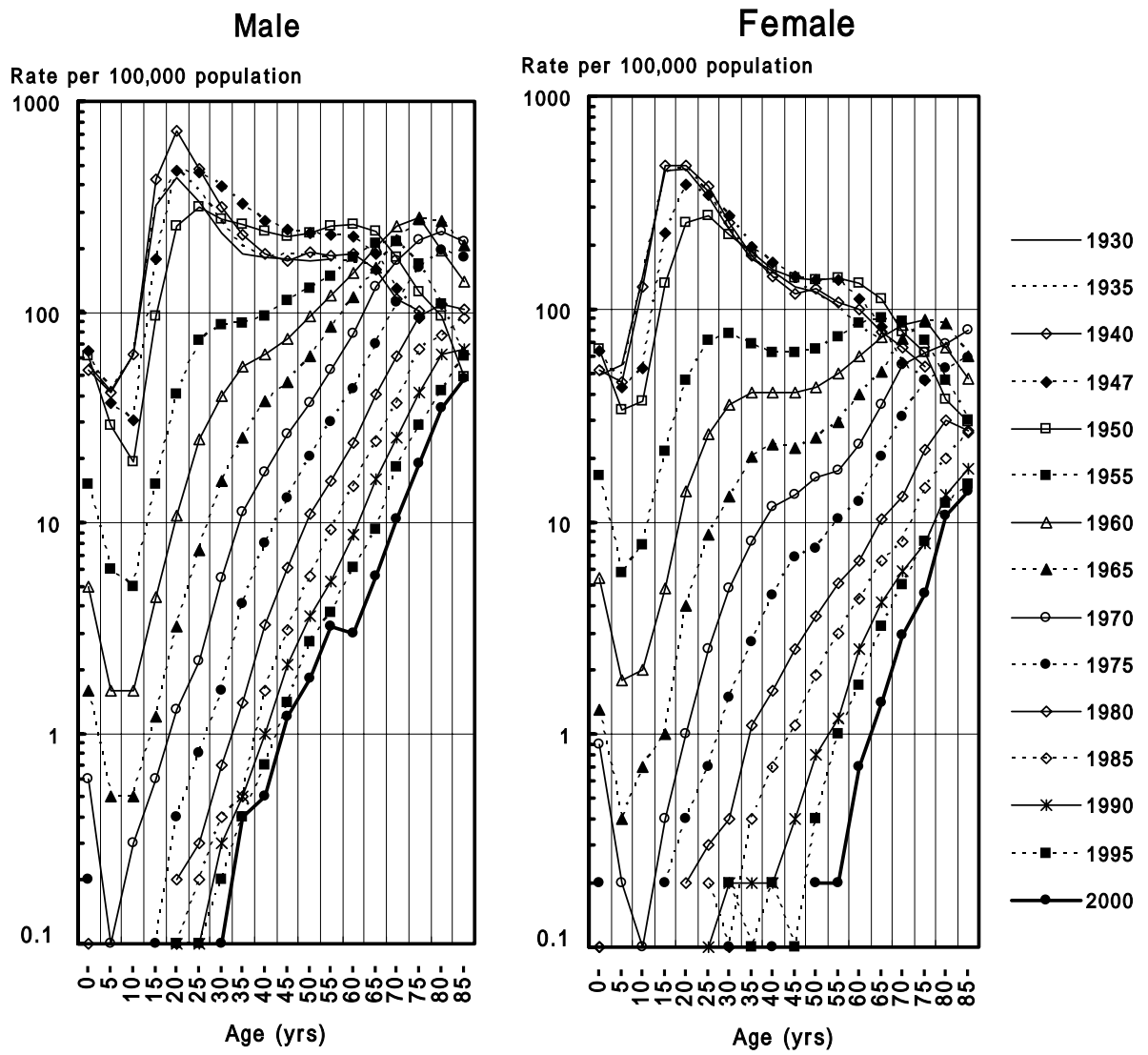


Figure 6 Trends of age-specific TB mortality rates in Japan by sex, 1930-2000.

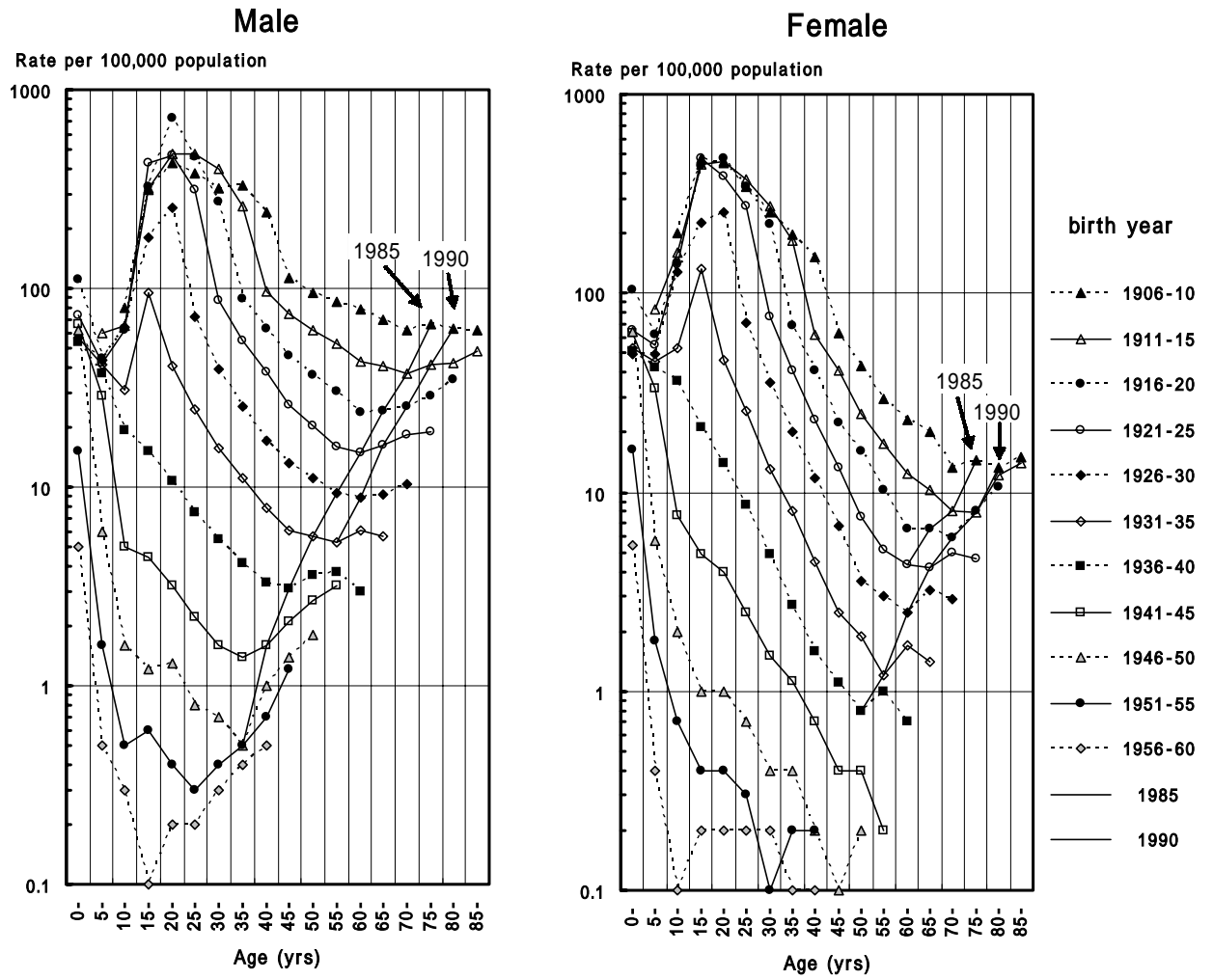


Figure 7 Trends of age-specific TB mortality rates in Japan by birth cohort and sex.

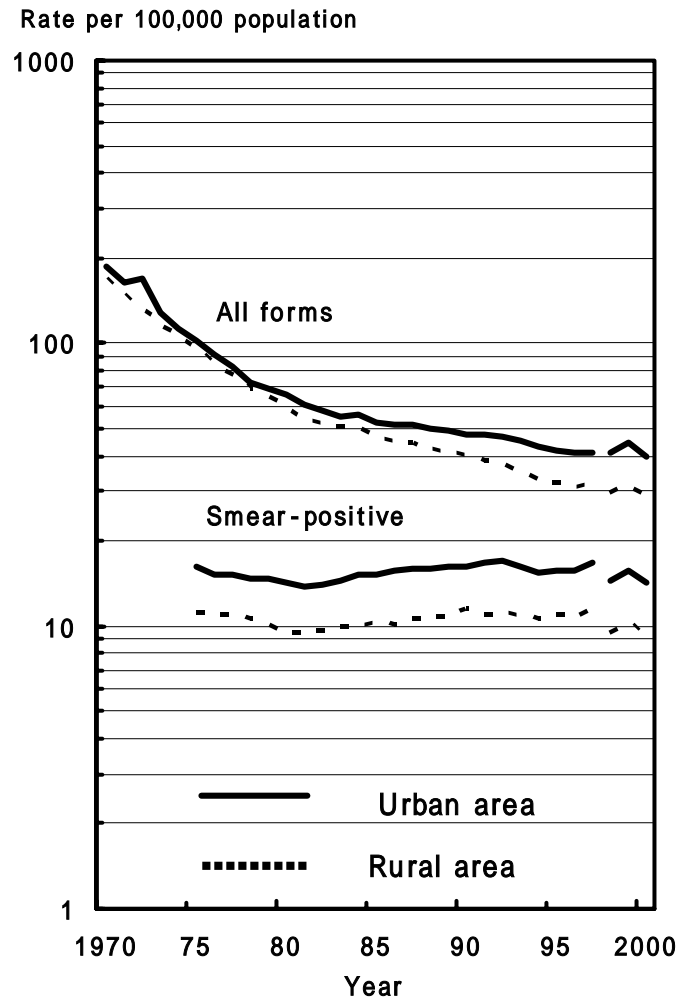


Figure 8 Trends of notification rates for all forms of TB and smear-positive TB in Japan, 1970-2000: comparison by type of area. All forms = all forms of TB in 1970-2000 (new criteria since 1998); Smear-positive = all forms of TB in 1975-1978, pulmonary TB in 1979-1997, and sputum smear-positive pulmonary TB (new criteria) in 1998-2000.

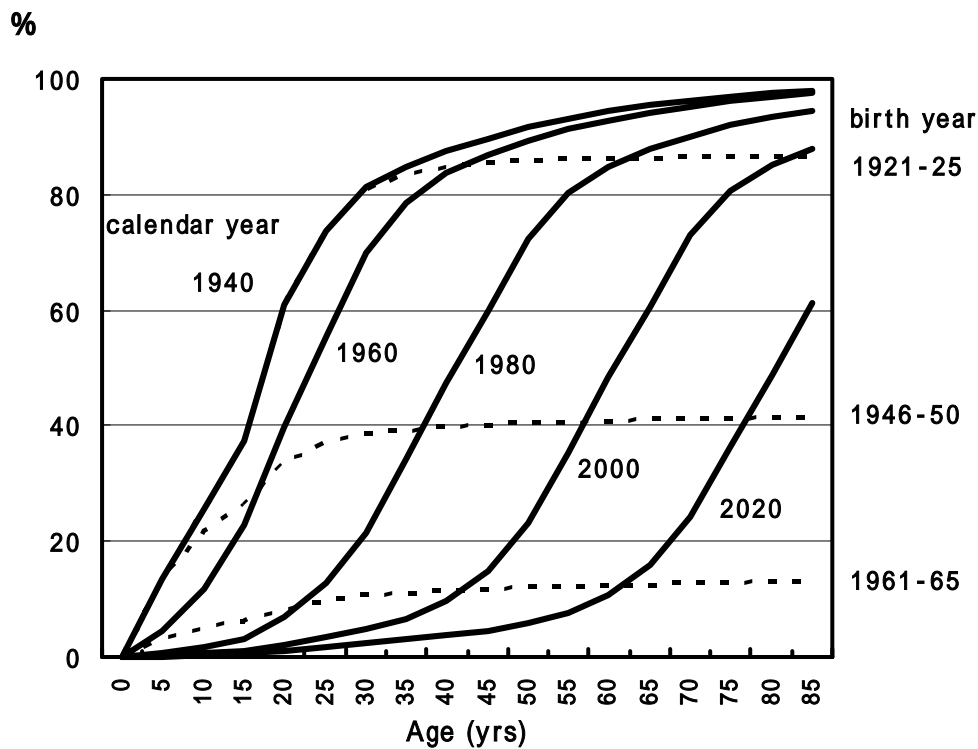


Figure 9 Estimated prevalence of TB infection in Japan by age, and by year and birth cohort. Solid line = Calendar year; Broken line = Birth year. Parameters used in the model: the annual risk of TB infection (ARI) before 1947 was 4%. It declined by 10% annually from 1947 to 1977, by 5% from 1977 to 1985, and by 3.1% thereafter. The weight applied to the risk of infection by age.

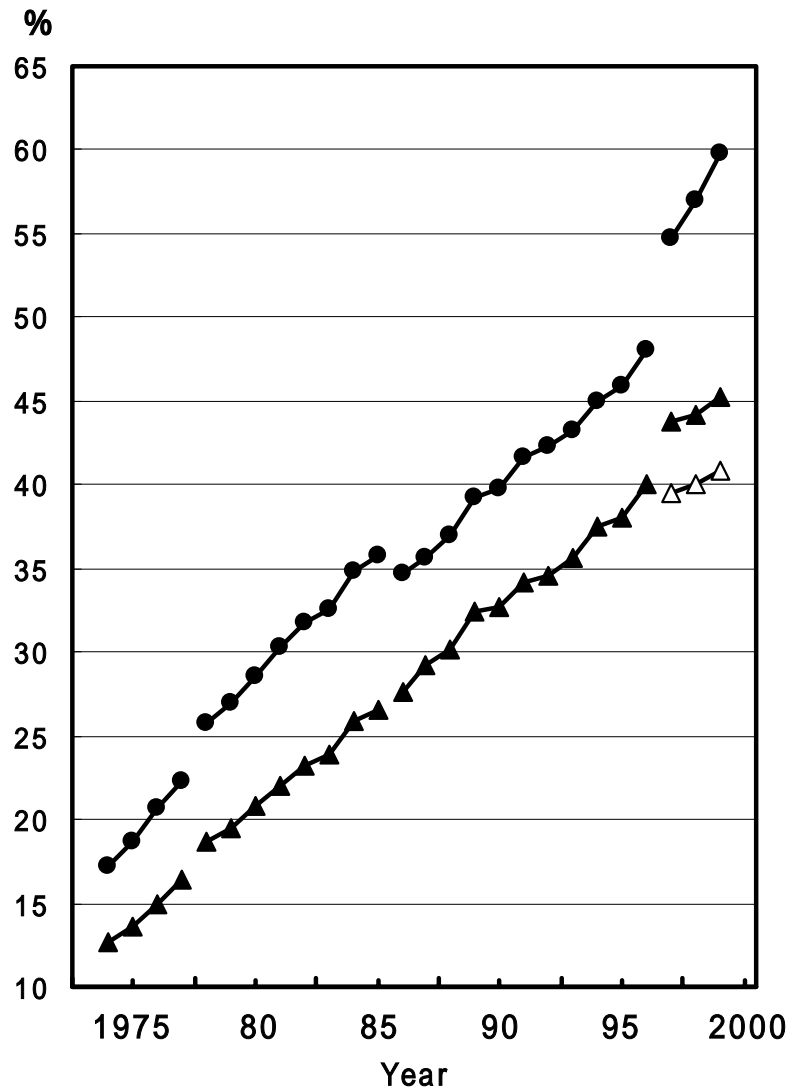


Figure 10 Proportion of bacteriologically confirmed cases among newly notified pulmonary TB cases in Japan, 1995-2000. Source of information: 1975-1986, annual report of TB from Public Health Center; 1987-2000, nationwide computerized TB surveillance system Study population (denominator): 1975-1978, all forms of TB cases; 1979-1997, Pulmonary TB cases (old criteria); 1998-2000, Pulmonary TB cases (new criteria). Bacteriologically confirmed cases (numerator): bacillary cases; smear-positive cases; sputum smear-positive cases.

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