



Mental health in the people's republic of China: An epidemiological journey

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Seven phases in the evolution of modern China's mental health services

- **Pre-1949** **Republican era**
- **1949-1965** **Post liberation**
- **1966-1976** **Cultural Revolution**
- **1977-1989** **Early Reform era**
- **1990-2002** **Late reform era**
- **2002-2011** **Post-SARS era**
- **2012-** **First National Mental Health Law**



Table 1. Mental health service resources in Western countries and China in the 1950s and 2000s

Country	Year	Population (million)	Number of psychiatric beds	Beds/100,000 people	Number of psychiatrists	Psychiatrists/100,000 people
China	1957	630	11 000	1.7	400	0.06
	2005	1300	146 000	11.2	18900	1.45
United States	1956	150	520 000	346.7	7000	4.67
	2005	300	223 000	74.3	40000	13.33
United Kingdom	1956	50	135000	270.0	3000	6.00
	2006	60	35 000	58.3	6600	11.00



1. 'Psychotic Psychiatry' (1977-1990)



Challenges to the development of mental health services in China (A)

- **Few if any services in rural areas**
- **Urban services focused in specialty hospitals**
- **No incentives to provide community services**
- **Low status of mental health professionals**
- **General physicians don't provide mental health services**
- **Few mental health nurse practitioners, social workers and clinical psychologists**
- **Social changes are leading to the need for new types of mental health services the current system is ill-equipped to provide**



Challenges to the development of mental health services in China (B)

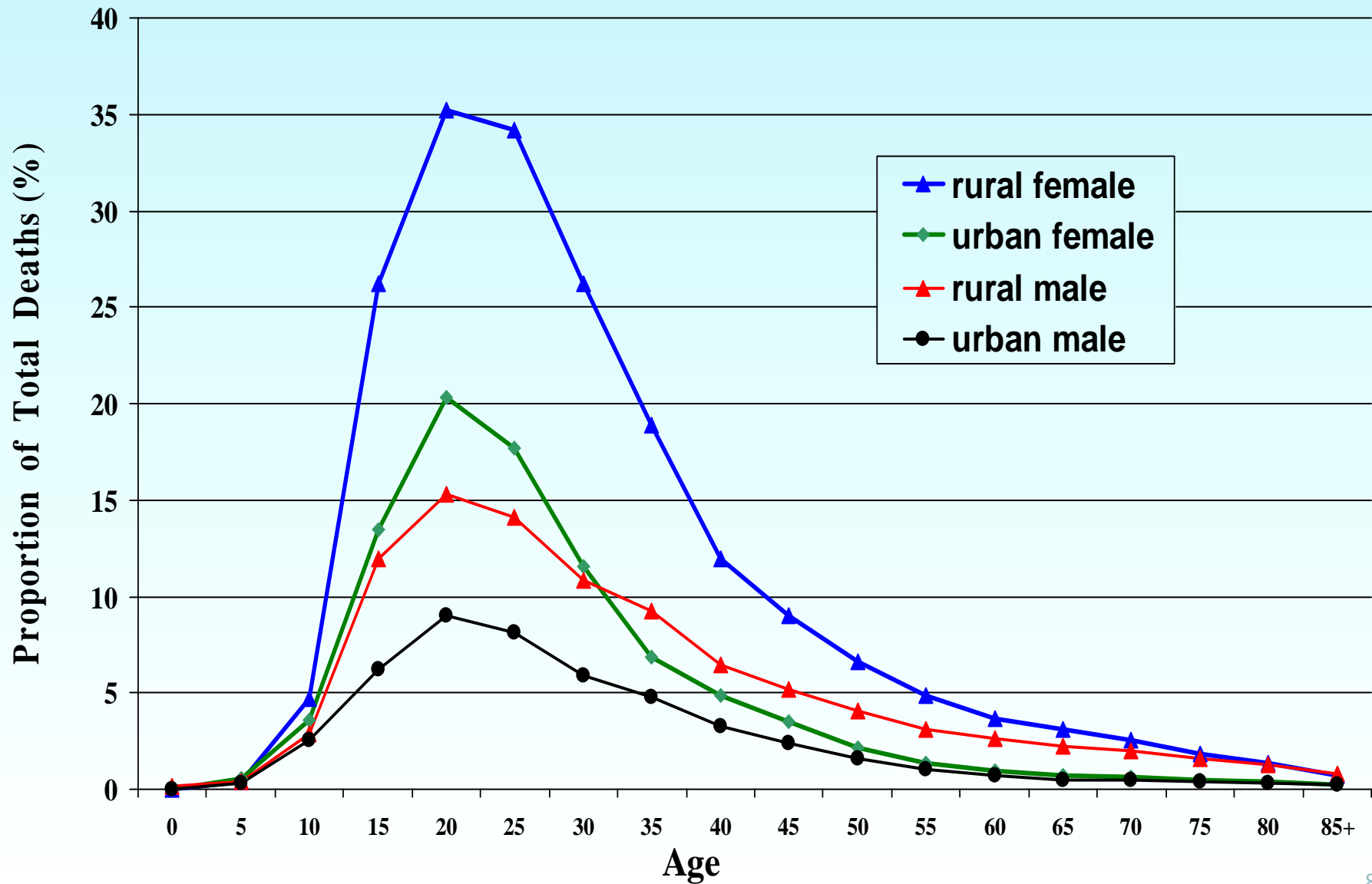
- **Stigma prevents sufferers from seeking care**
- **No organized family movement to lobby for better services**
- **The legal framework for the protection and supervision of the mentally ill is not yet complete**
- **Difficult to implement cross-sectoral strategies to prevent and manage mental health problems**
- **Administrative structure for managing services is ineffective**
- **Low quality of mental health services research**



2. Mortality statistics released by Ministry of Health (early 1990s)

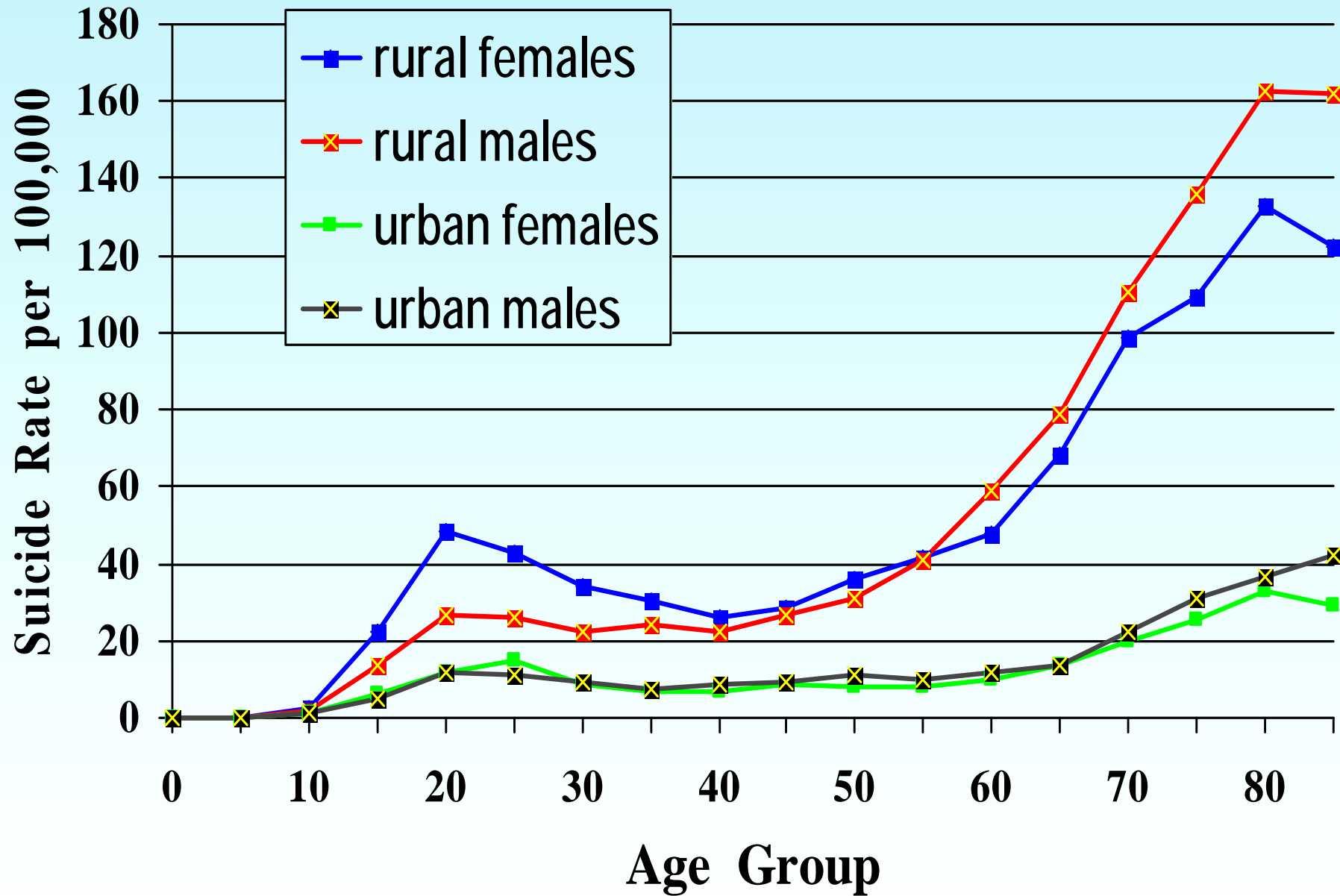


Proportion of Total Deaths Due to Suicide: China 1995-1999





Suicide Rates in China 1995-1999

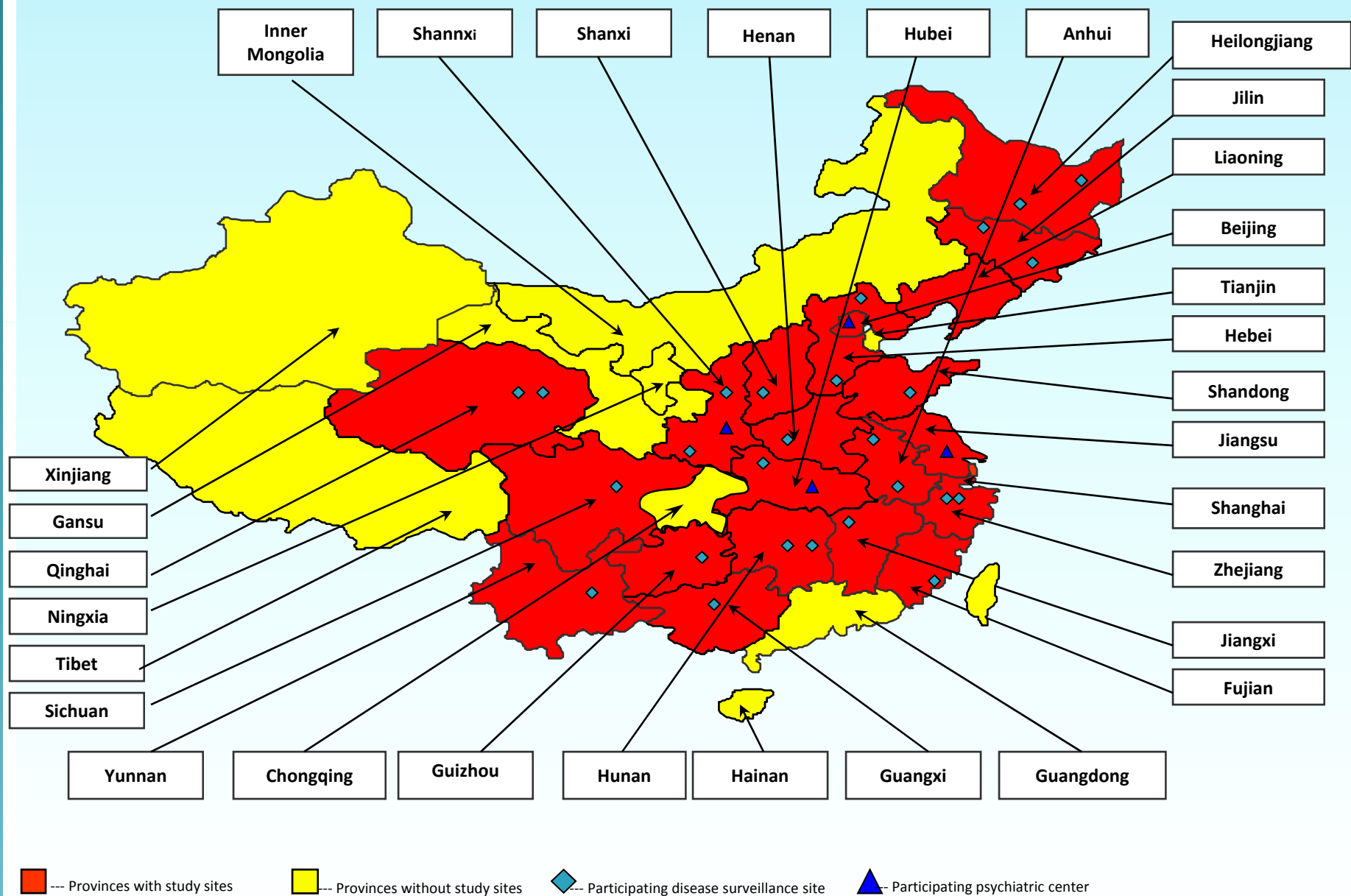


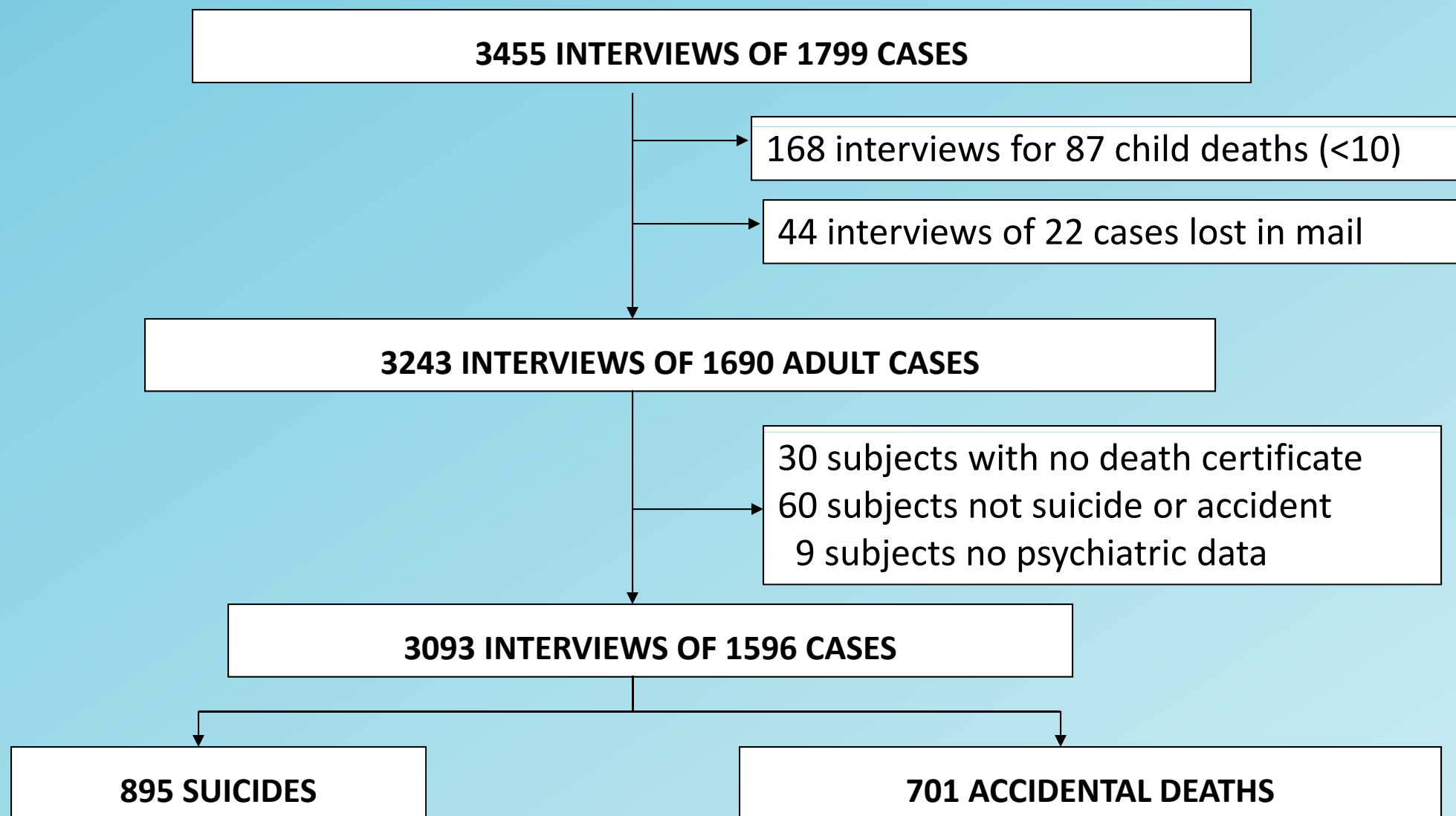


3. National Psychological Autopsy Study (1996-2001)



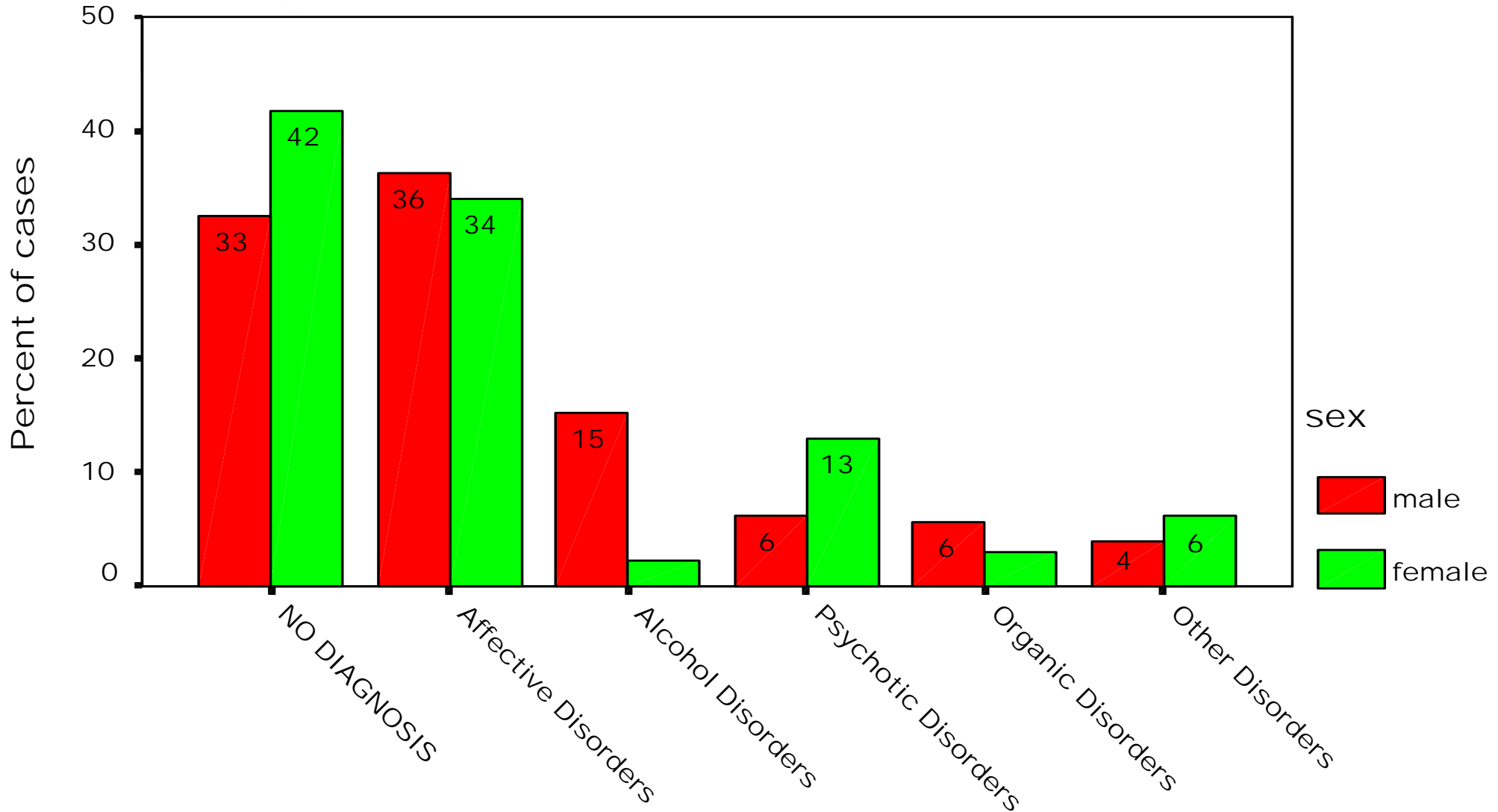
Locations of 23 sites included in national psychological autopsy study





DATA COLLECTION FOR THE PSYCHOLOGICAL AUTOPSY STUDY

Psychiatric diagnosis in 454 male and 441 female completed suicides from the national psychological autopsy study





Premeditation in attempted suicide

Time from FIRST considering suicide to making the suicide attempt in 590 individuals who made serious suicide attempts:

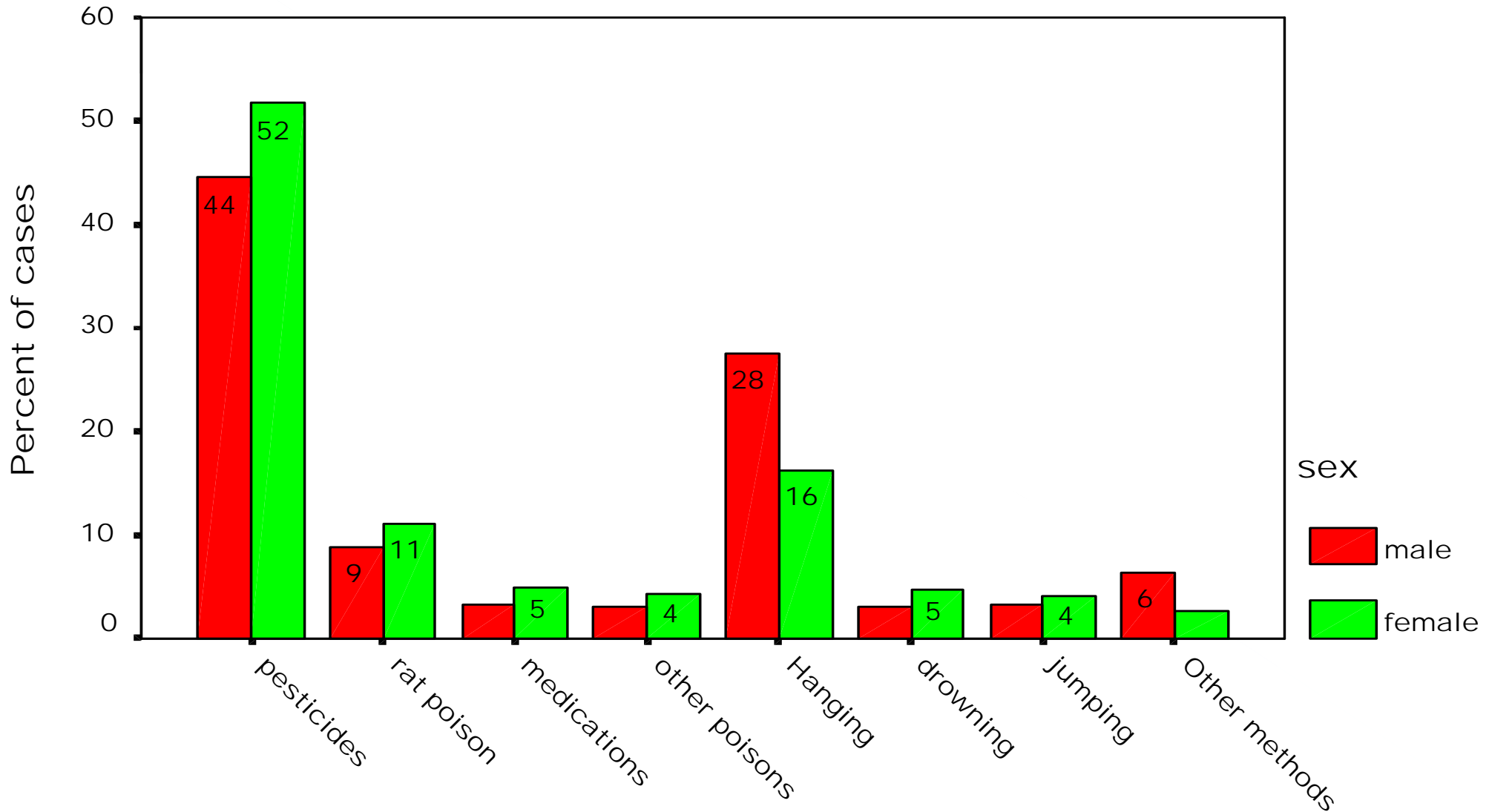
5 minutes or less **37%**

10 minutes or less **46%**

2 hours or less **60%**

Method of suicide among 454 male and 441 female

completed suicides from the national psychological autopsy study





Data from LAMIC countries is challenging conventional wisdom about suicide

- Rapid urbanization does not, necessarily, lead to increased rates
- The heavy predominance of male suicides (3:1 in most Western countries) is not seen in China and other Asian countries
- Mental illness is NOT a precondition for suicidal behavior
- The ‘valence’ of risk and protective factors such as divorce and religious affiliation are context and time dependent
- The role of specific life events—which can change over time—is less important than the cumulative stress of all life events
- Chronic and acute stress are independent risk factors for suicide that may work on different pathways
- Risk factors are largely additive
- Pesticide ingestion is, by far, the most common method of suicide in the world



4. Mental Health Prevalence Studies (1982-2003)



Different estimates of point prevalence of mental disorders in China

Year	Location	N	Affective disorders (%)	All disorders (%)	Criteria
1982	12-sites	38,136	0.24	3.28	[≥ 15] PSE; ICD-9
1993	7-sites	19,233	0.35	2.63	[≥ 15] PSE; ICD-9
2003	Beijing	2,633	2.5	9.1	[≥ 18] CIDI; ICD-10 (12-month)
2003	Shanghai	2,568	1.7	4.3	[≥ 18] CIDI; ICD-10 (12-month)



Proportion of Total Disease Burden (using DALYs) for 6 Major Categories of Diseases and Injuries in China (2004)

	males and females		males		females	
	rank	% of all burden	rank	% of all burden	rank	% of all burden
Neuropsychiatric Conditions and Suicide	1	20.4	1	19.5	1	21.6
Cardiovascular Diseases	2	12.2	3	12.0	2	12.5
Unintentional Injuries	3	11.2	2	13.4	4	8.5
Sense Organ Diseases	4	10.3	5	9.4	3	11.4
Malignant Neoplasms	5	9.6	4	10.8	5	8.2
Respiratory Diseases	6	7.6	6	6.5	6	6.7

From: Global Burden of Disease: 2004 update. Geneva, WHO, 2008.



5. Four-province mental health epidemiological study (2001-2005)

[Diagnosis made by psychiatrists using semi-structured interview]

REGION

-  Dong Bei
-  Hua Bei
-  Hua Zhong
-  Hua Nan
-  Xi Nan
-  Xi Bei
-  No proposals

GANSU,Tianshui: N=10,249 [CMB]
Regional Psychiatric epidemiology study

HEBEI: N=24,000 [CMB]
Provincial psychiatric epidemiology study
(not included in current report)

QINGDAO: N=4,776 [Qingdao]
Regional psychiatric epidemiology study

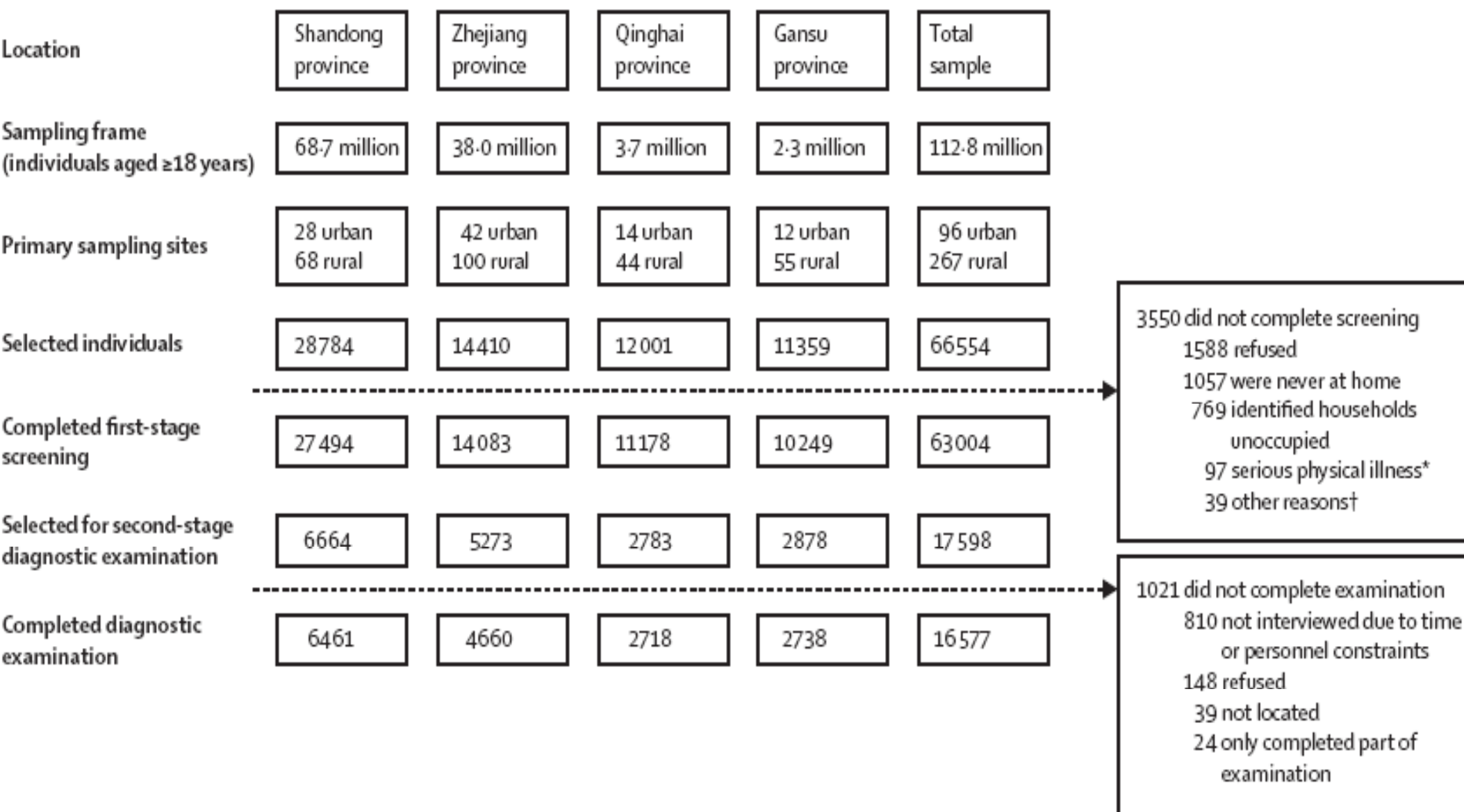
SHANDONG: N=22,718 [CMB]
Provincial psychiatric epidemiology study

QINGHAI: N=11,178 (CMB)
Provincial psychiatric epidemiology study

ZHEJIANG: N=14,083 [WHO]
Provincial psychiatric epidemiology study

Sites of the CMB-supported psychiatric epidemiology study

Flowchart for the 4-province mental health epidemiological project in China





Rates of current mental disorders among 63,004 randomly selected community members 18 years of age and older from Shandong, Zhejiang, Qinghai and Gansu (2001-2005)

	%	95% confidence interval	
<i>Any current mental disorder</i>	17.5%	16.6%	18.5%
mood disorders	6.1%	5.7%	6.6%
anxiety disorders	5.6%	5.0%	6.3%
substance abuse (primarily alcohol)	5.9%	5.3%	6.5%
psychotic disorders (schizophrenia)	1.0%	0.8%	1.1%
organic mental disorders	0.2%	0.2%	0.3%
other mental disorders	0.3%	0.3%	0.4%

* adjusted for sampling design and clustering and post-stratified to sampling frame of 113 million adults

Disability and care-seeking among those with a current DSM-IV diagnosis

	N	Level of disability		Treatment seeking (in lifetime)		
		mild	moderate-severe	none	only non-mental health clinician	ever seen a mental health clinician
ANY DIAGNOSIS	6322	75.9%	24.1%	91.8%	3.4%	4.9%
mood disorders	2657	61.1%	38.9%	91.7%	4.9%	3.4%
anxiety disorders	2177	77.7%	22.3%	93.9%	3.2%	2.9%
substance abuse disorders	1477	96.0%	4.0%	98.8%	0.8%	0.4%
psychotic disorders	387	14.6%	85.4%	27.6%	12.0%	60.4
organic disorders	132	34.7%	65.3%	88.4%	6.0%	5.7%
other disorders	153	59.4%	40.6%	90.7%	6.0%	3.2%



The most important question about mental illnesses is NOT

How many people are there with mental illnesses?

The most important questions are:

- *What proportion of those who meet diagnostic criteria of mental illnesses have moderate to severe social or occupational disability due to the mental illness?*
- *Do those with mental illnesses and their family members know they have a treatable condition?*
- *Are they willing to seek psychological treatment?*
- *What treatment services are available to them?*
- *Are their general doctors able to recognize and treat common mental disorders?*
- *How affordable and effective are the available services?*

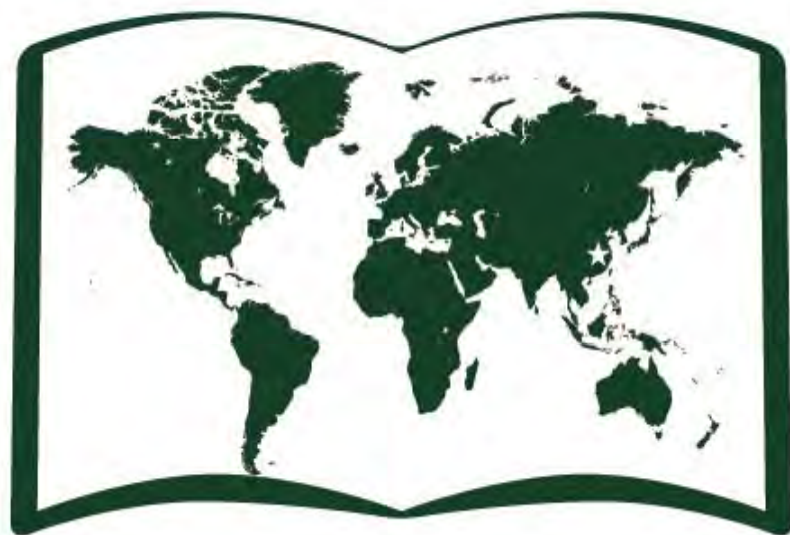


Providing services to 173 million mentally ill Chinese

- **Projecting our results to the nation, there are an estimated 173 million adults with current mental disorders in China among whom 158 million have never sought treatment. About one-quarter of them are moderately to severely disabled because of their condition.**
- **Addressing a problem of this magnitude in LMIC requires a major redistribution of limited societal and health resources that will only occur with the active participation of powerful political, economic, social and professional stakeholders in the community.**
- **Effective promotion of mental health in LMIC also requires a detailed appreciation of the historical trajectory of political, social, economic and health system changes in the country or region.**



6. China's revolutionary mental health law (1986-2012)



SAP

Shanghai Archives of Psychiatry

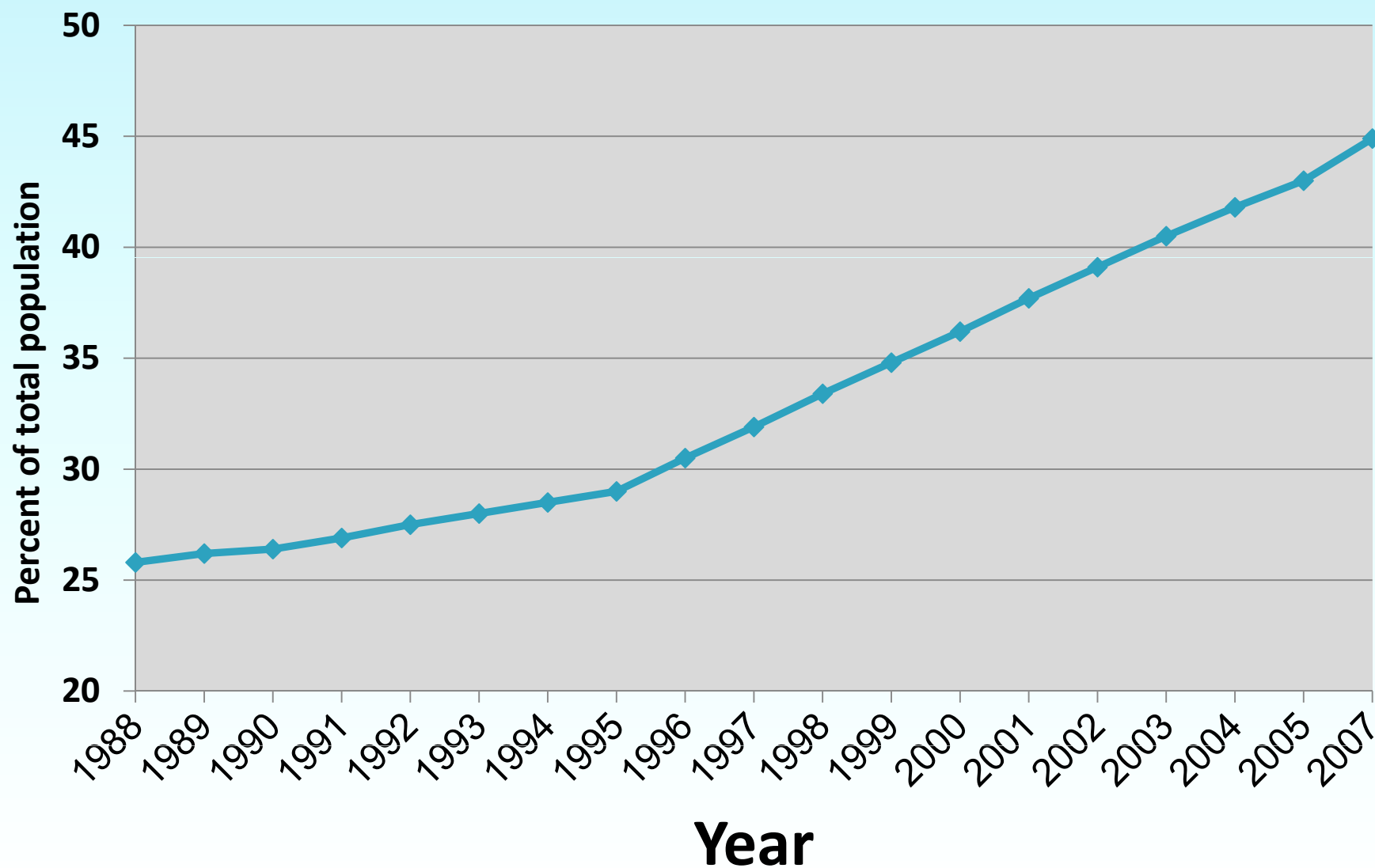
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7. What's happened to suicide rates?

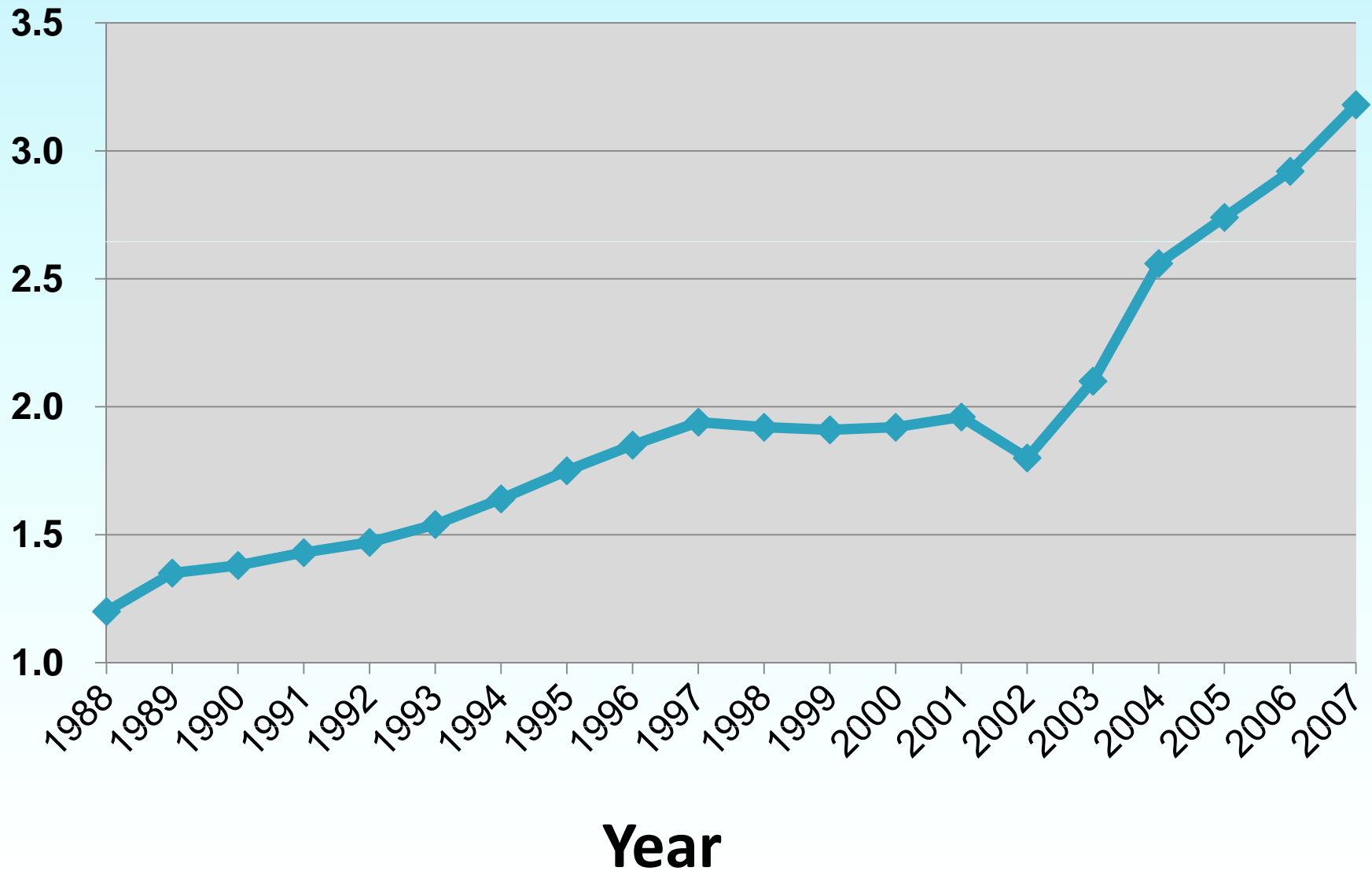


Proportion of the Chinese population that reside in cities or towns



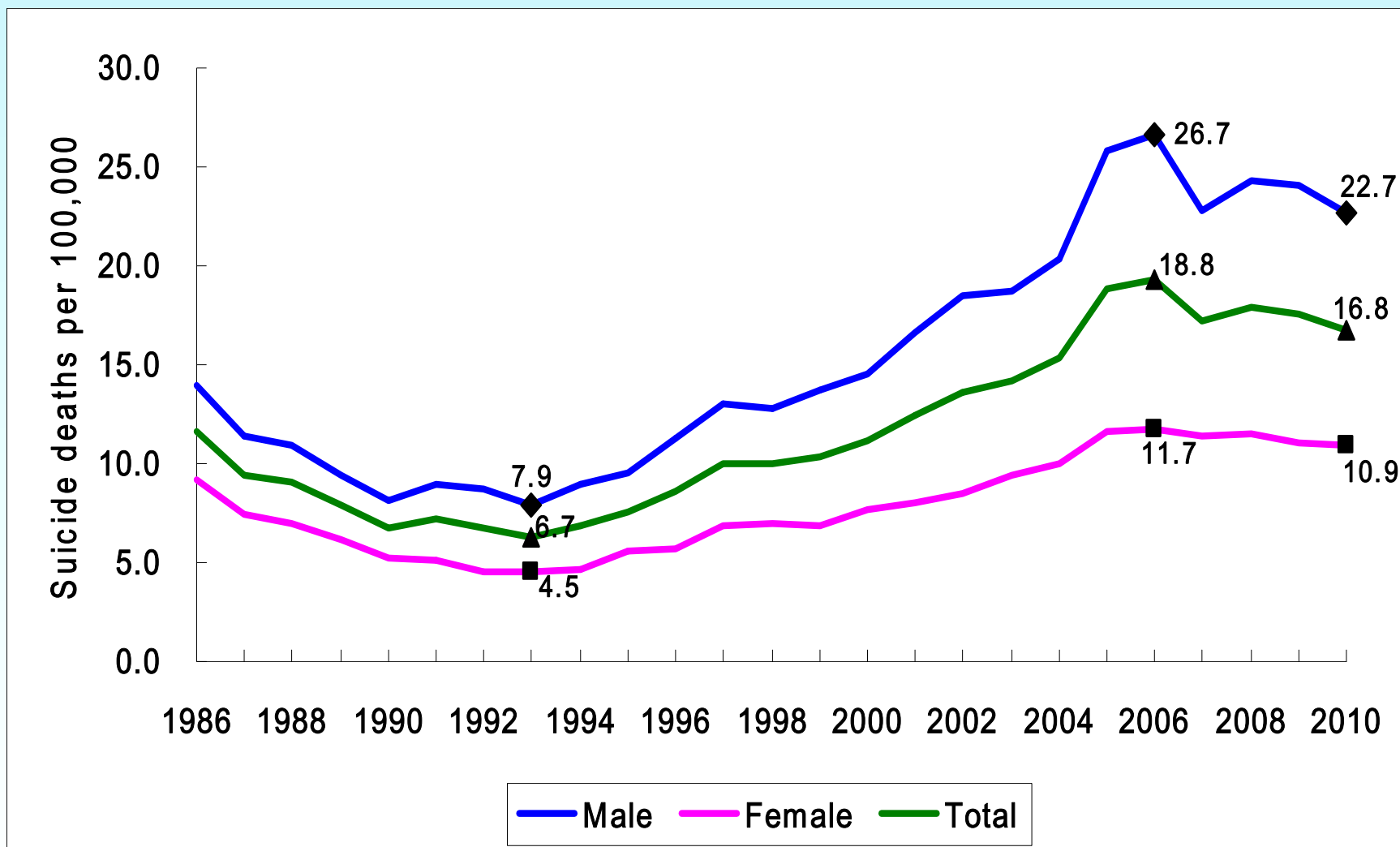


Number of persons per 1000 residents who are divorced



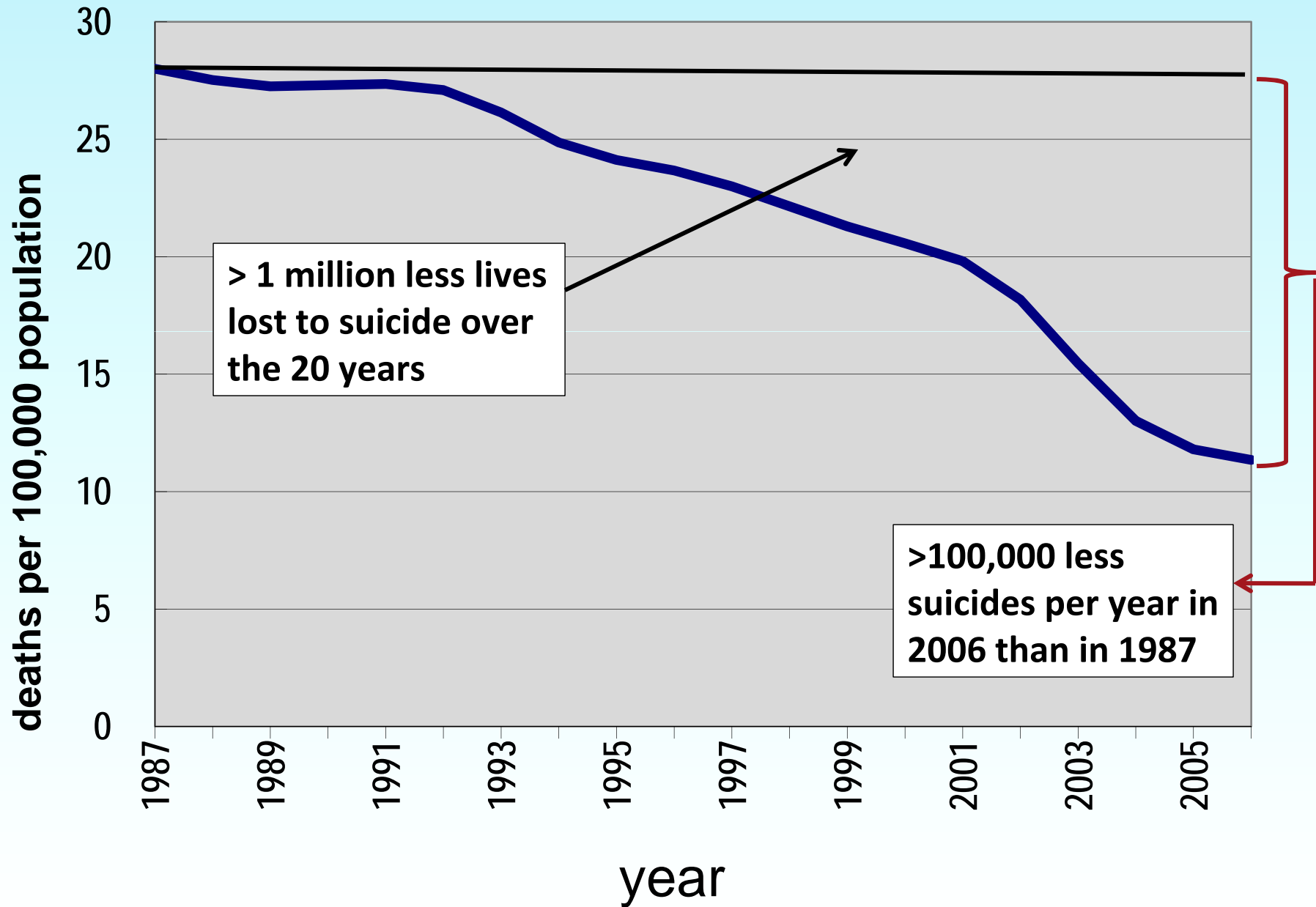


Sex-specific suicide rates in Taiwan, 1986-2010





Suicide Rate in China 1987-2006





**THANK YOU FOR
LISTENING**
ΓΙΣΛΕΝΙΜΕ