

# **Cervical Cancer in Developing Countries**

**Prof. G. Benagiano**

# Incidence rates for cervical cancer

Country-specific ranges:

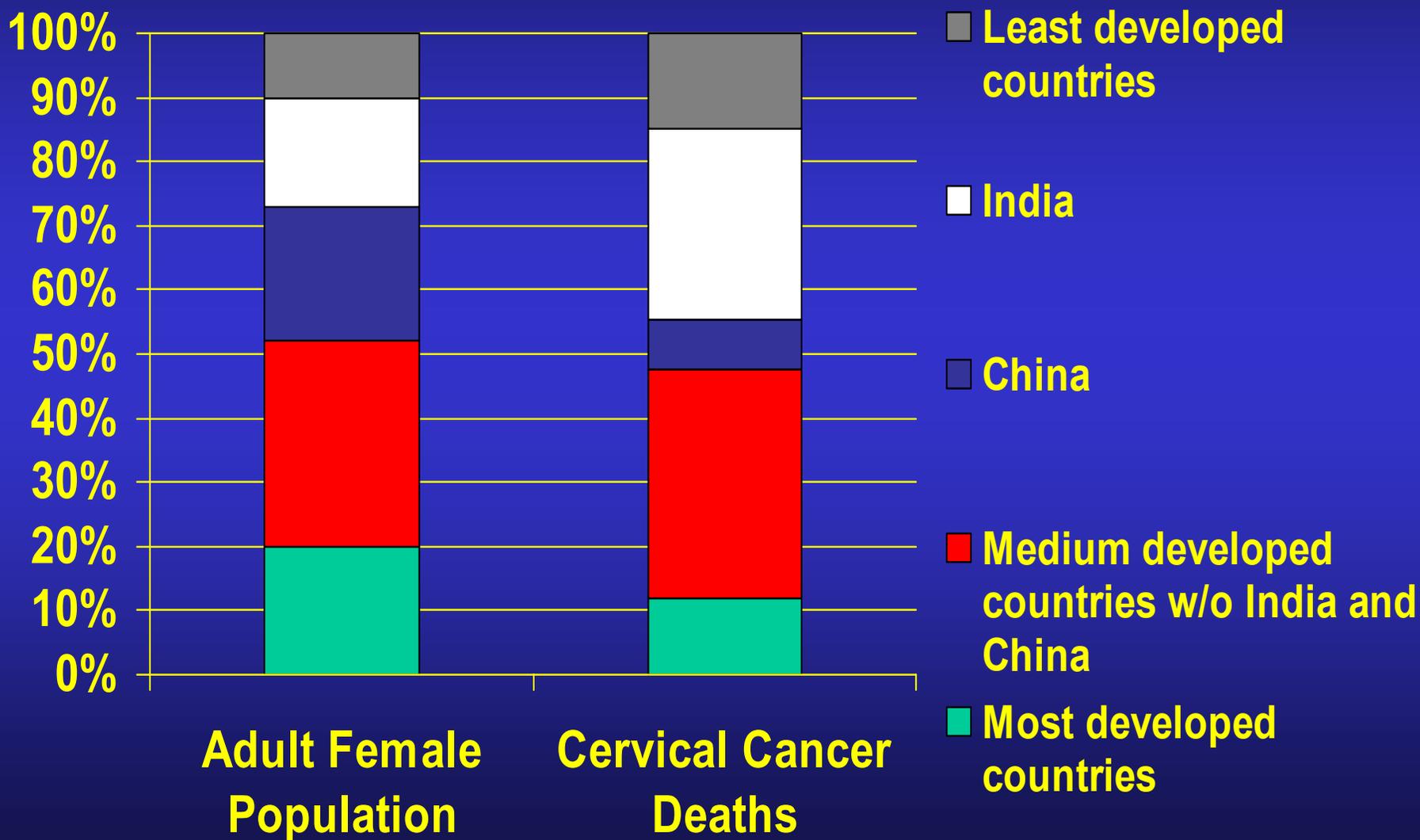
**3.0 to 61.4 per  $10^5$  females**

Mean incidence:

**127 developing countries:  $19.2/10^5$**

**45 developed countries:  $10.6/10^5$**

# Global distribution of the adult female population and deaths due to CC



**The main obstacle to a further improvement of the situation is the high cost and labor intensive nature of all screening programs; for this reason, in most developing countries global preventive programs have been rarely implemented and almost never sustained; the usual picture is one of little financial support which entails poor quality and low coverage rates. These facts alone explain why mortality rates in the less developed countries are twice those of the industrialized ones**

**A number of screening procedures suitable for developing countries have been recently proposed, notably the visual inspection of the cervix with the immediate referral for treatment of all dubious cases. Although such a crude method leaves much to be desired, it allows the screening of large numbers of women at low cost and without laboratory-dependent methods.**

**It is today well established that genital infections - notably HPV - play an etiologic role in the genesis of invasive cervical carcinoma. Therefore, it should not surprise that societal characteristics, such as religion and geography, have been independently associated with cervical cancer incidence**

# Average CC incidence according to predominant religion

Predominant religion	Number of countries	Mean CC rates	Min, max
Christian	49	35.2	9.3-61.4
Hinduist	4	30.6	26.5-43.8
Indigenous/local	10	30.3	16.6-45.8
Orthodox Christ.	10	16.0	10.6-31.5
Muslim	44	15.6	3.0-51.8
Buddhist	10	7.7	5.2-28.9

# The 7 developing countries with the lowest CC rates

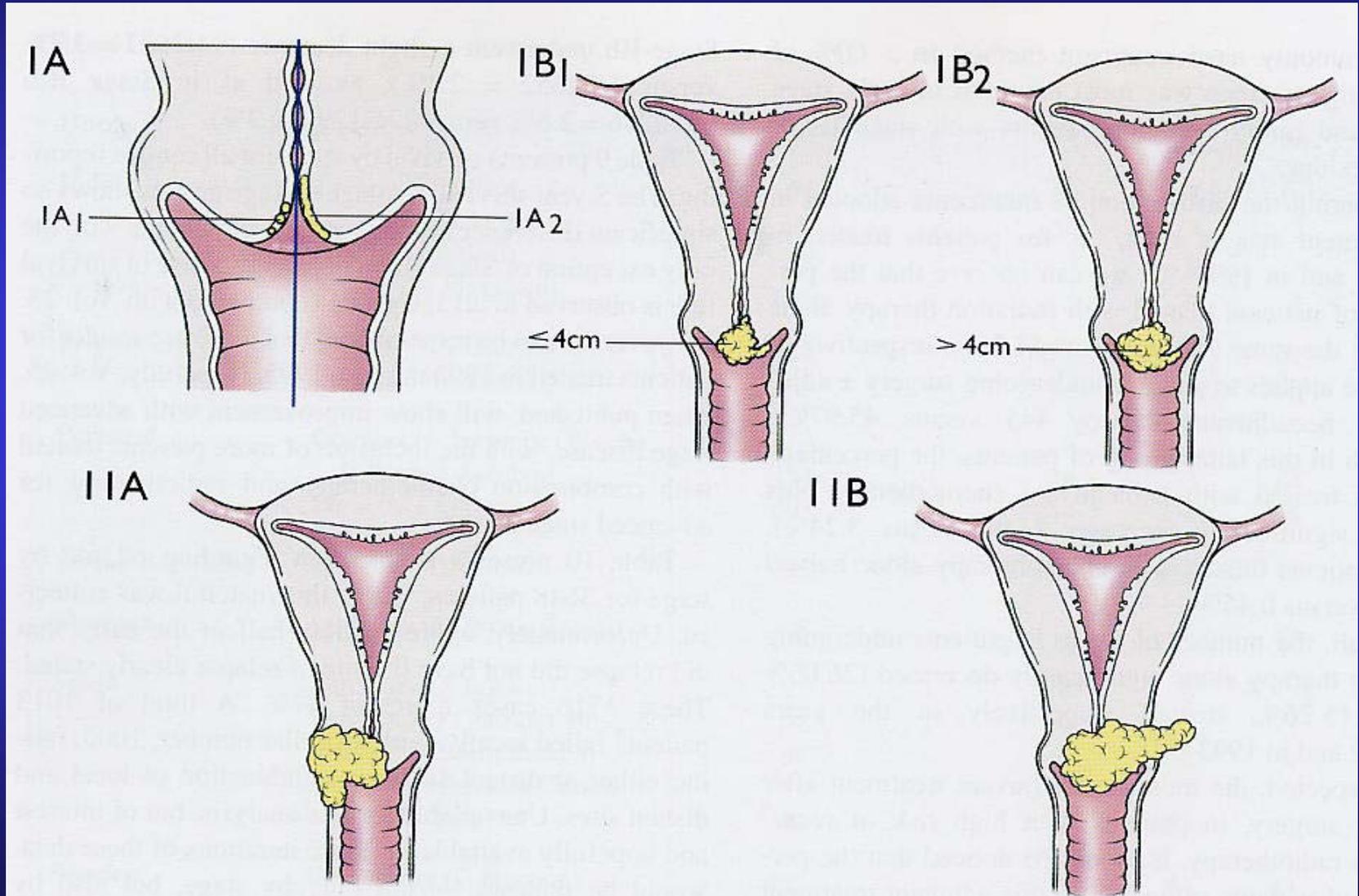
Lowest CC rates		Highest CC rates	
Syrian Arab Republic	3.0	Tanzania	61.4
Iraq	3.3	Zambia	61.1
Turkey	3.9	Nicaragua	61.1
Azerbaijan	4.2	Bolivia	58.1
Jordan	4.2	Malawi	56.2
Yemen	4.8	Swaziland	52.2
Saudi Arabia	5.0	Zimbabwe	52.1

# Average CC incidence defined by geographic regions

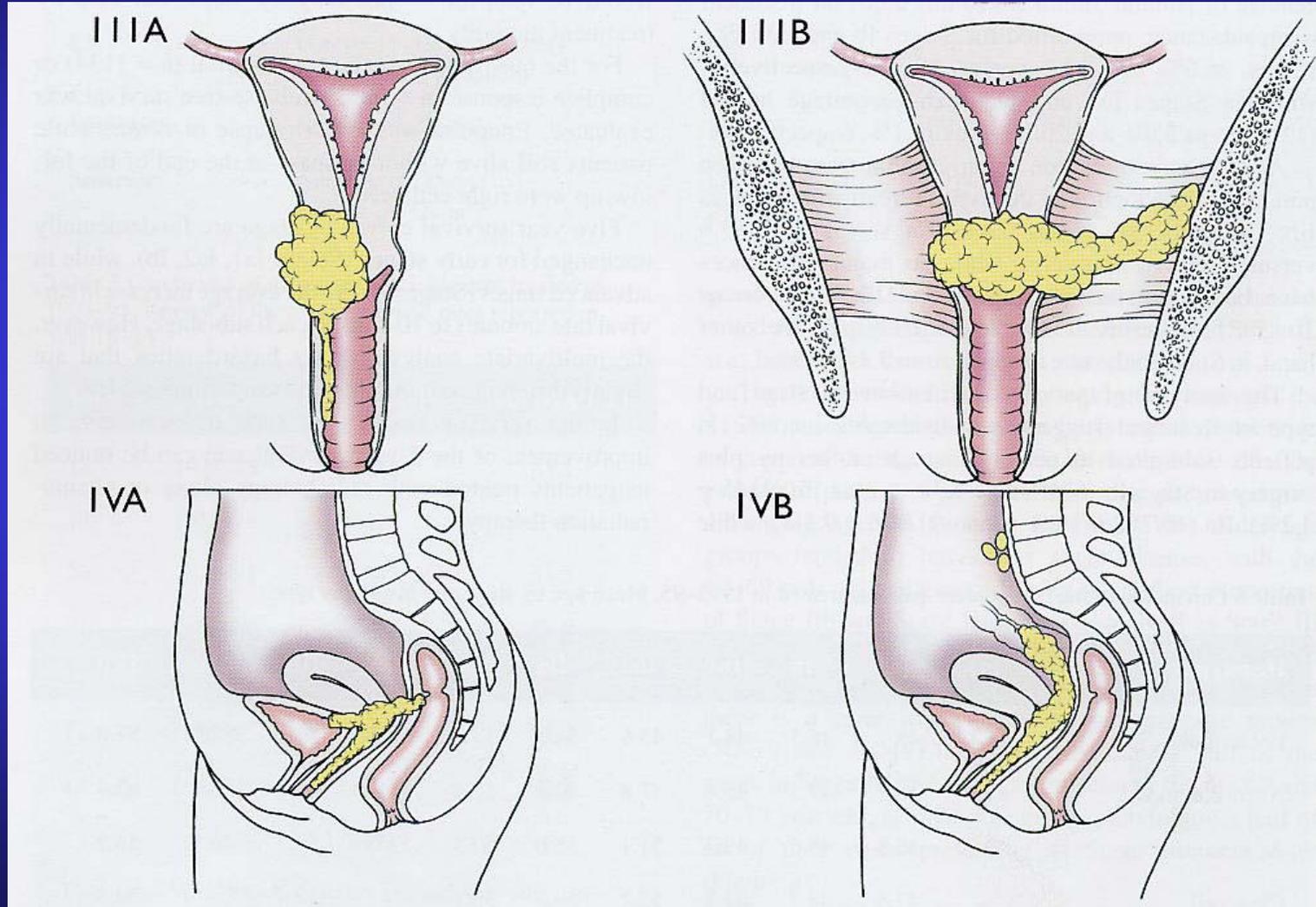
Geographic region	Number of countries	Mean CC rates	Min, max
Latin America	21	35.8	23.9-61.1
Africa	51	27.9	6.8-61.4
Asia	33	16.3	4.2-45.4
Europe	13	16.1	9.3-31.5
Middle East	9	5.6	3.0-9.4

As expected, sexual and reproductive behaviours, public health, economic, demographic and development indicators, including high total fertility and early female age at birth of first child, are all significantly associated with cervical cancer.

# Staging cervical cancer: the FIGO classification



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VOLUME 6 NUMBER 1 2001

ISSN 1359-5229

ISBN 1 910865 39 8

*Journal of*  
**EPIDEMIOLOGY**  
*and*  
**BIostatistics**



Fédération Internationale de Gynécologie et d'Obstétrique

Annual Report on the Results of  
Treatment in Gynaecological Cancer

*Twenty-fourth volume*

*Statements of results obtained in patients treated in 1993-1995*



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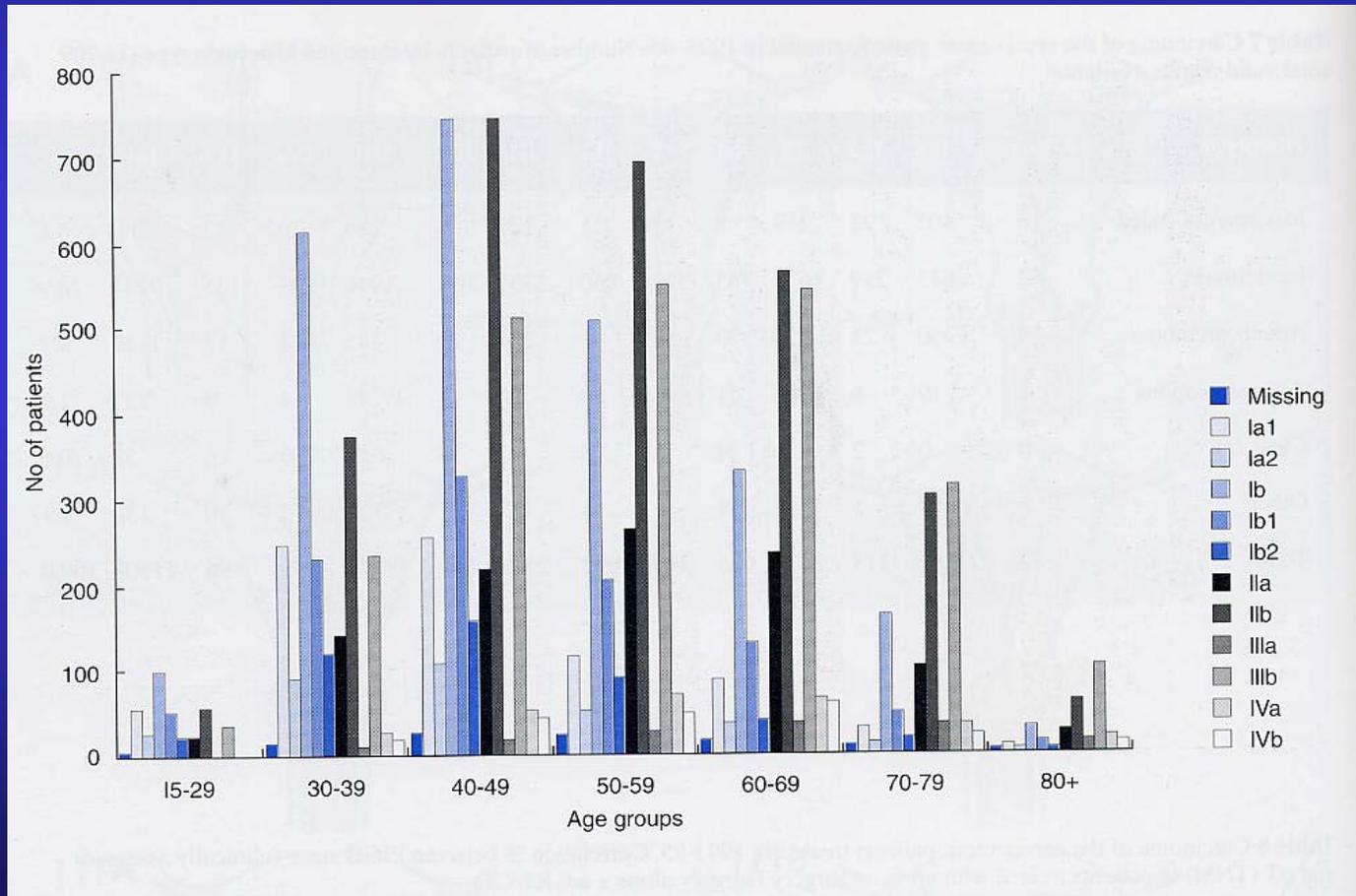
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# The annual report 2001

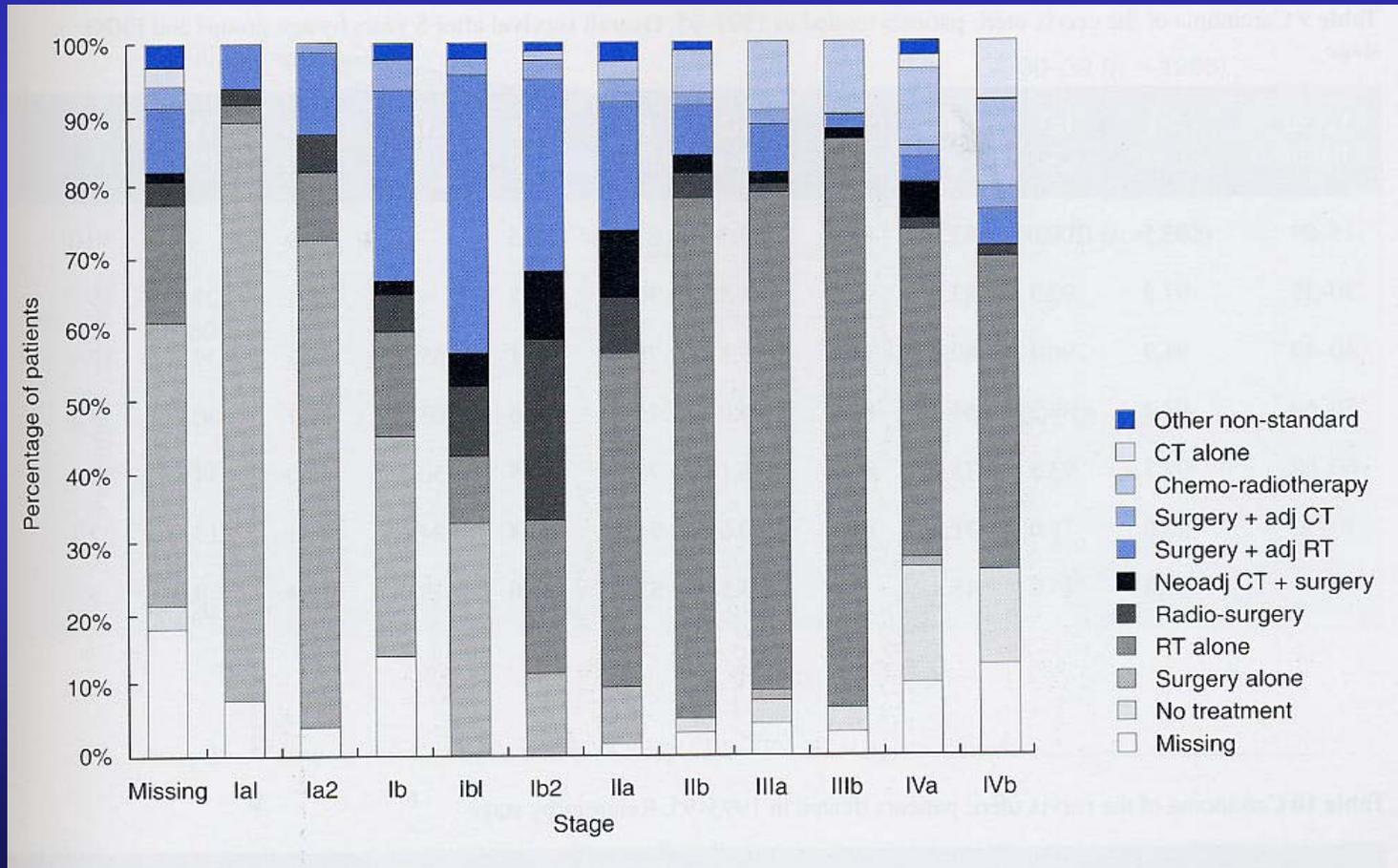
## Number of patients treated in 1993-1995.

Histotype	Missing	Ia1	Ia2	Ib	Ib1	Ib2	IIa	IIb	IIIa	IIIb	IVa	IVb	Total	%
Missing/not stated	16	102	22	359	8	3	21	121	6	89	30	23	800	6.8
Epidermoid	53	613	259	1634	745	352	860	2337	107	1946	203	135	9244	78.9
Adenocarcinoma	14	50	23	336	170	66	71	224	10	145	14	17	1140	9.7
Adenosquamous	1	19	6	96	51	11	30	58	3	49	4	9	337	2.9
Clear cell	0	0	2	10	4	3	3	13	0	17	0	6	58	0.6
Other	5	3	1	35	8	5	8	22	5	25	7	6	130	1.1
Total	89	787	313	2470	986	440	993	2775	131	2271	258	196	11709	100.0

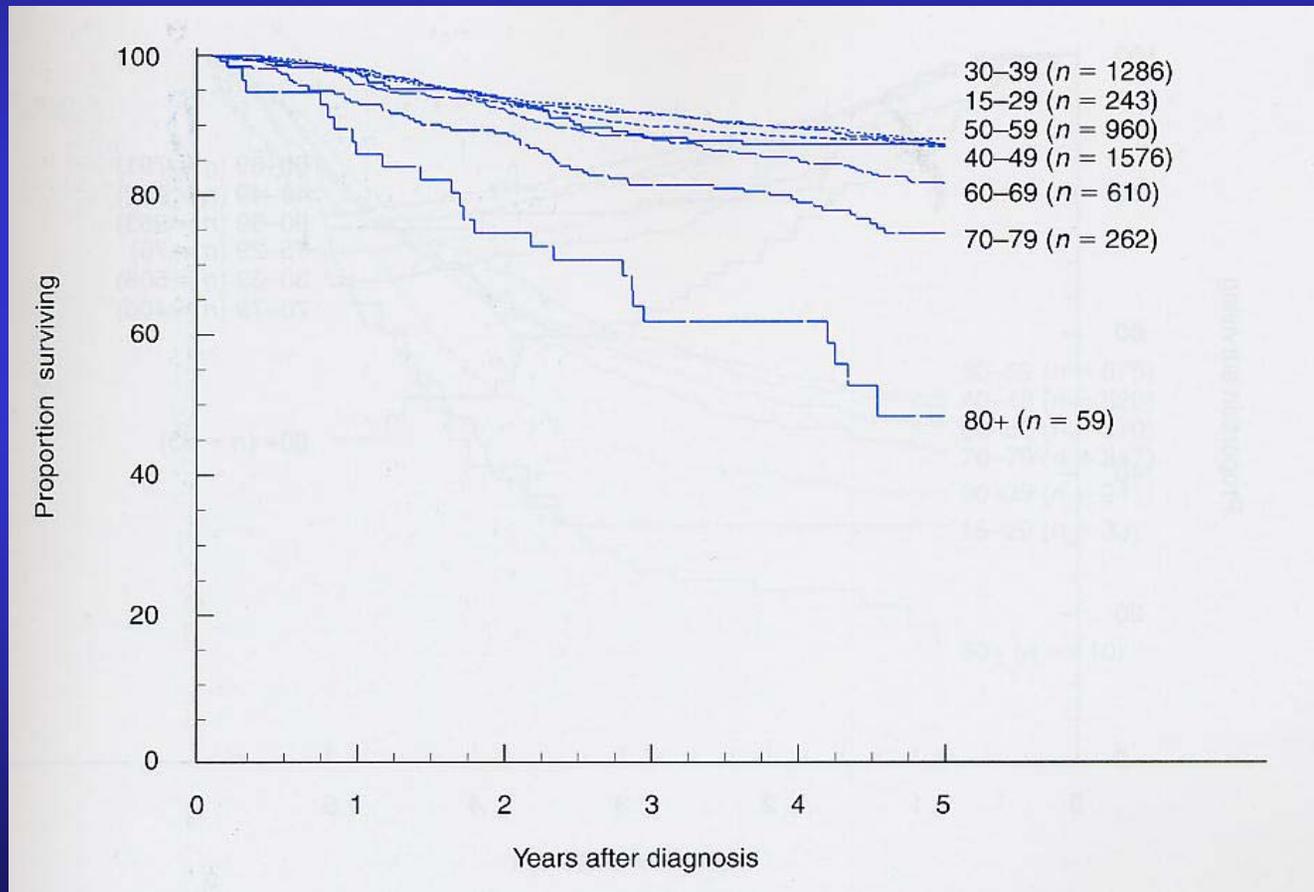
# Distribution of patients by stage and age groups



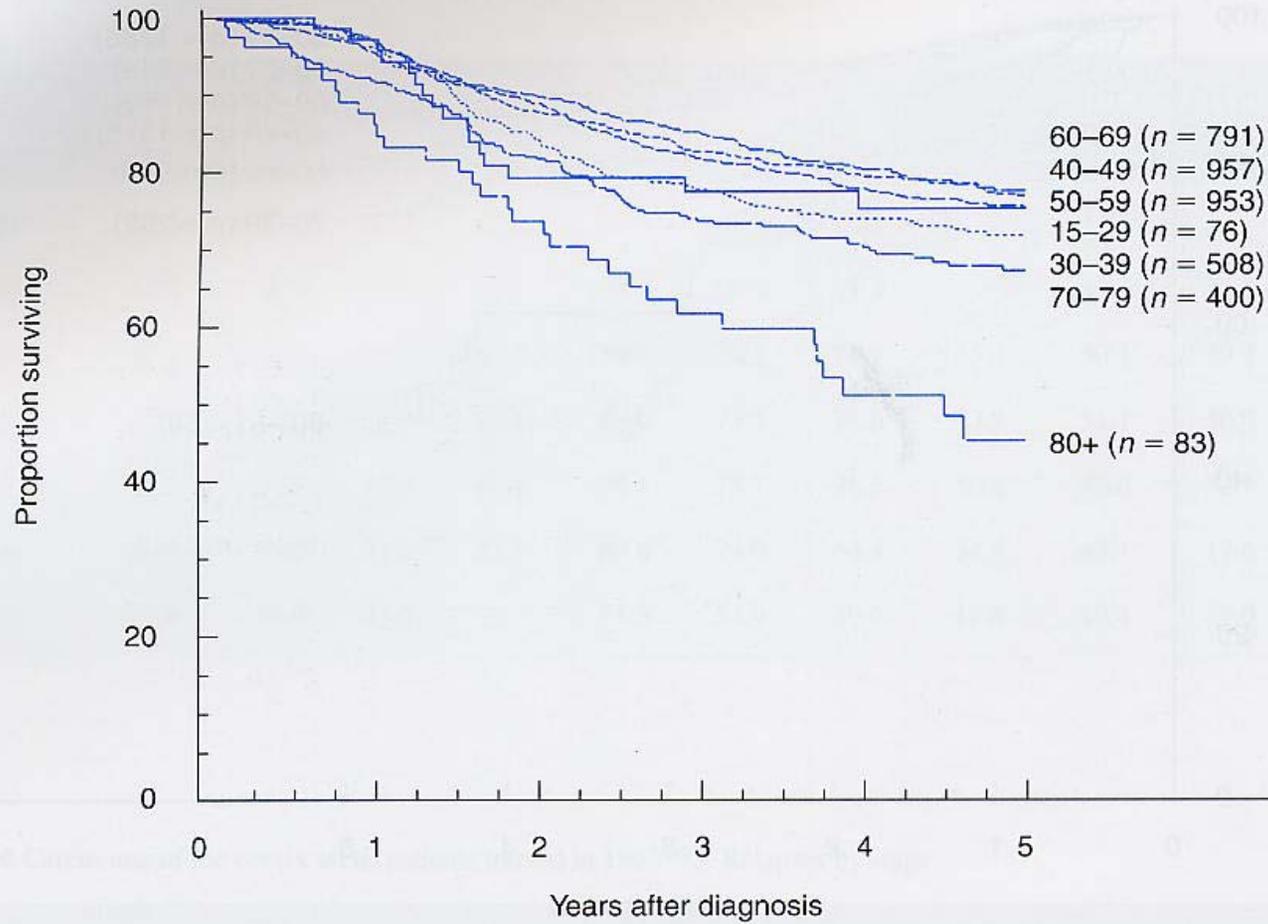
# Distribution of patients by stage and mode of treatment



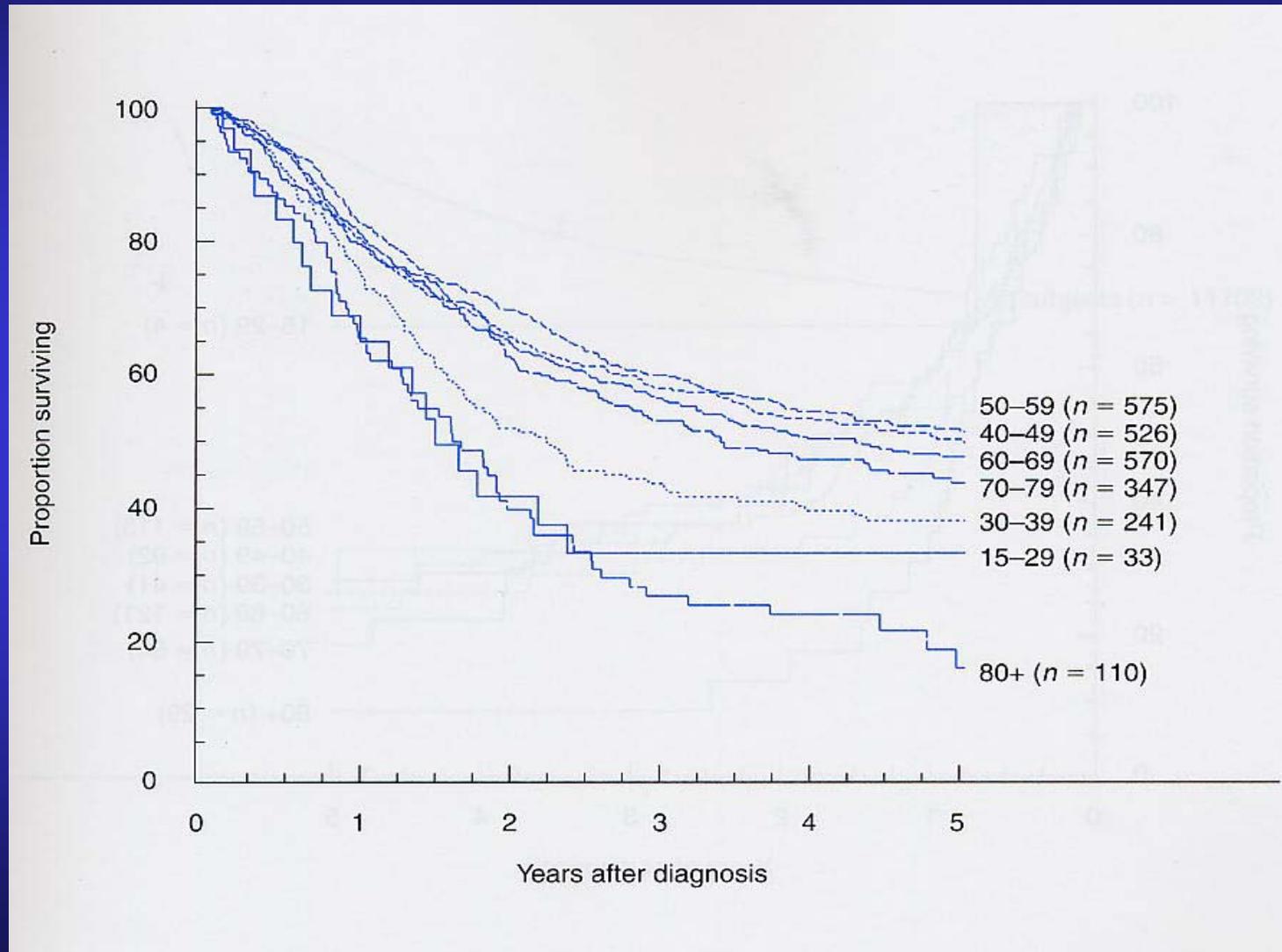
# Survival by age group. Stage I



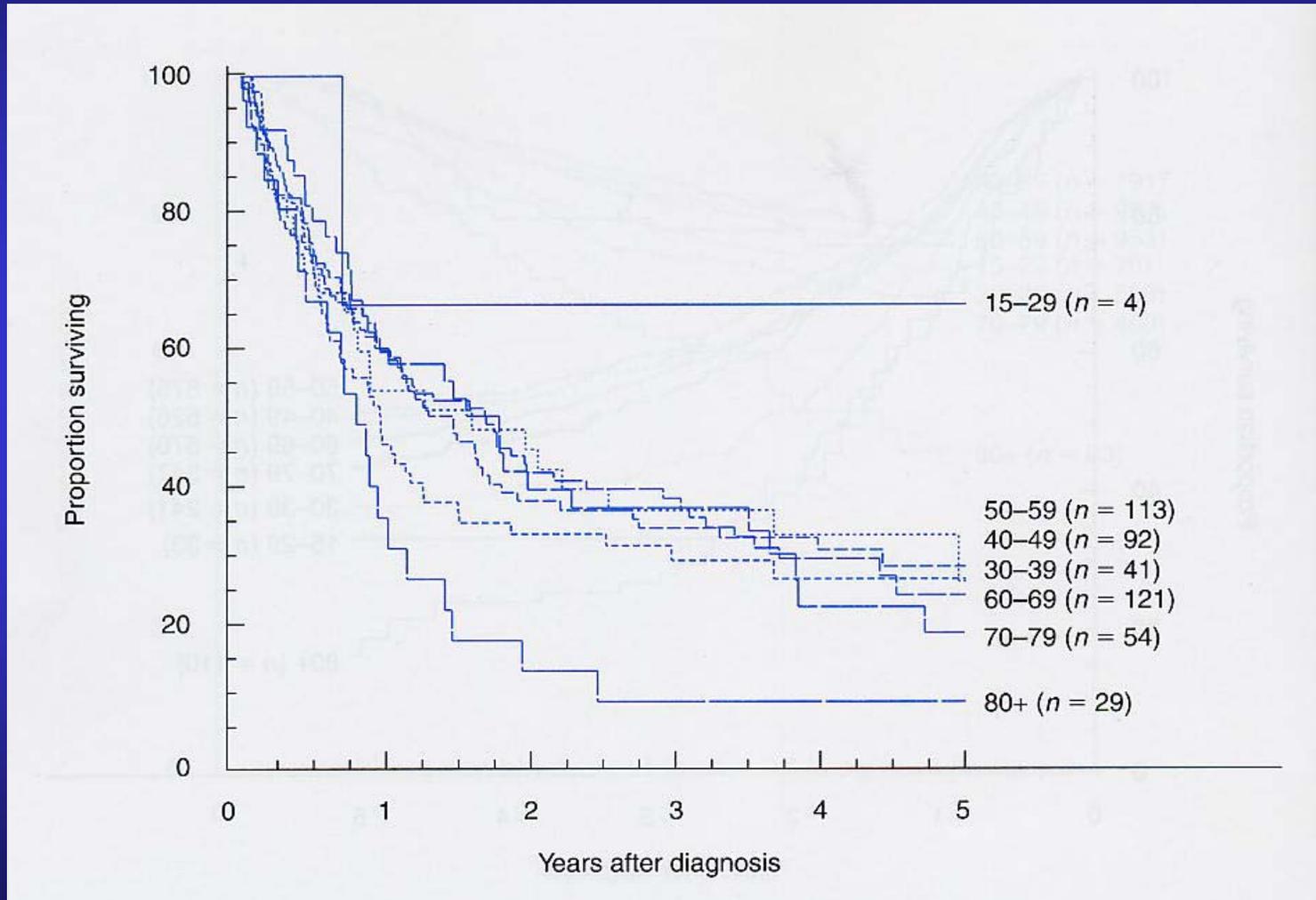
# Survival by age group. Stage II



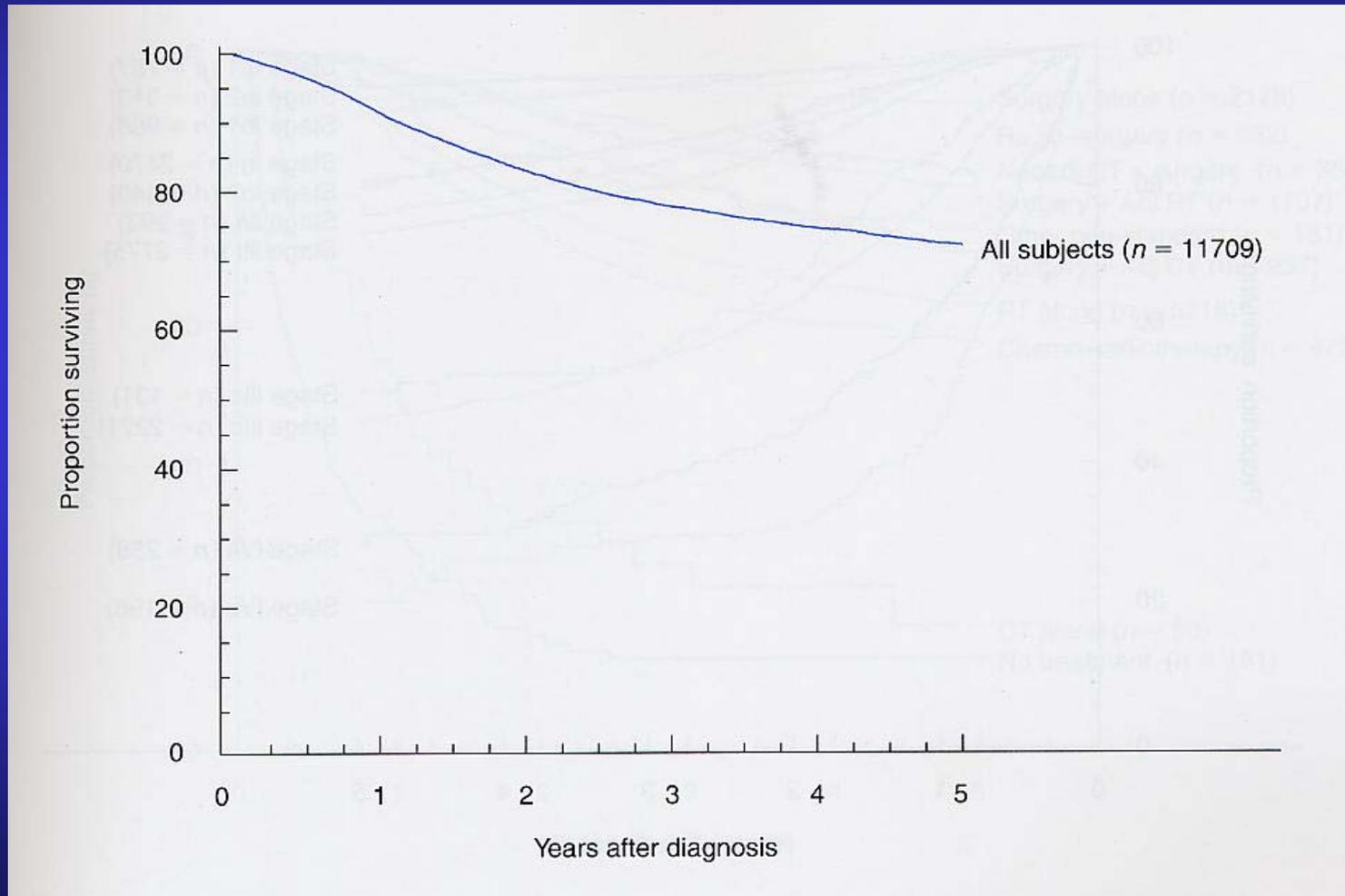
# Survival by age group. Stage III



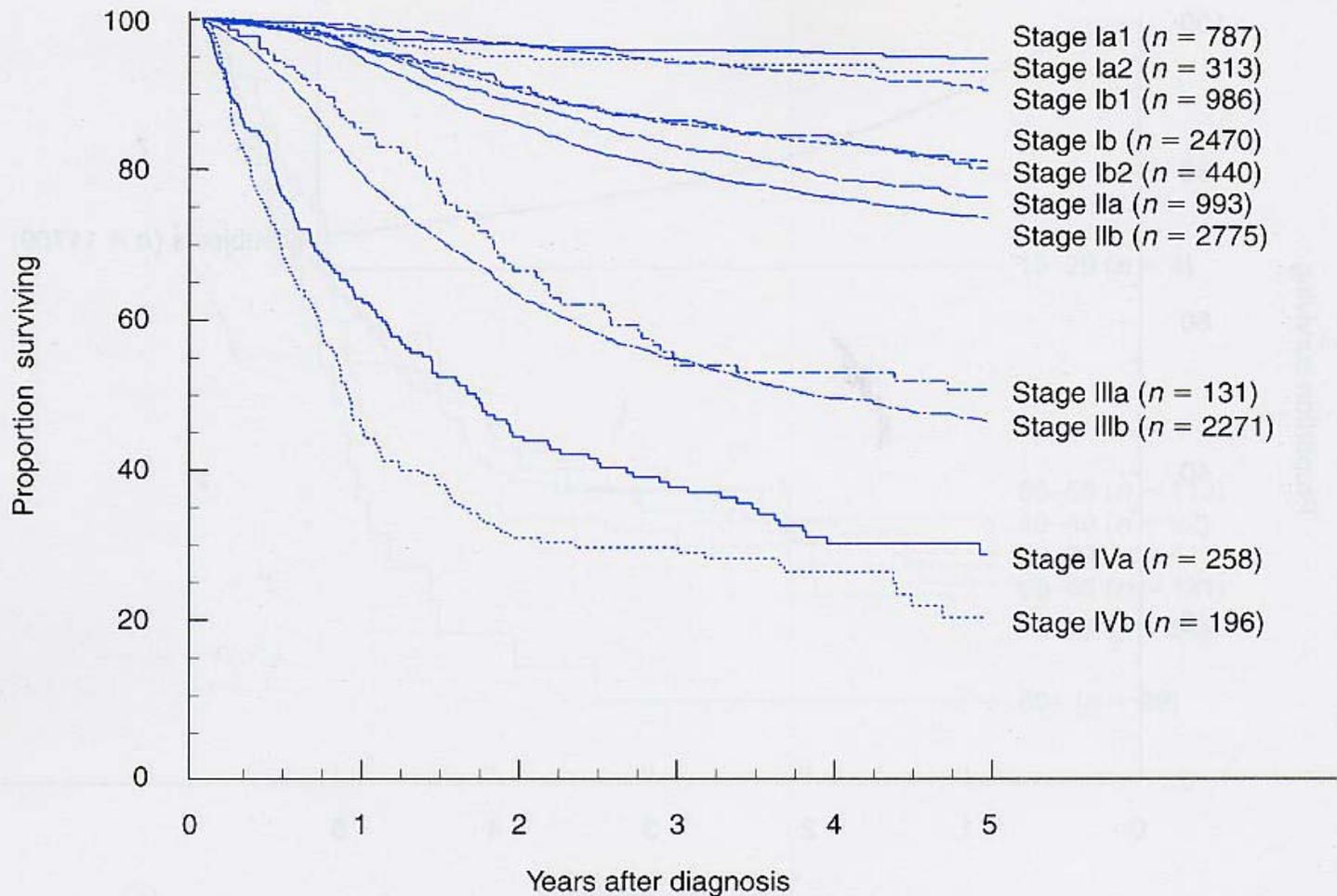
# Survival by age group. Stage IV



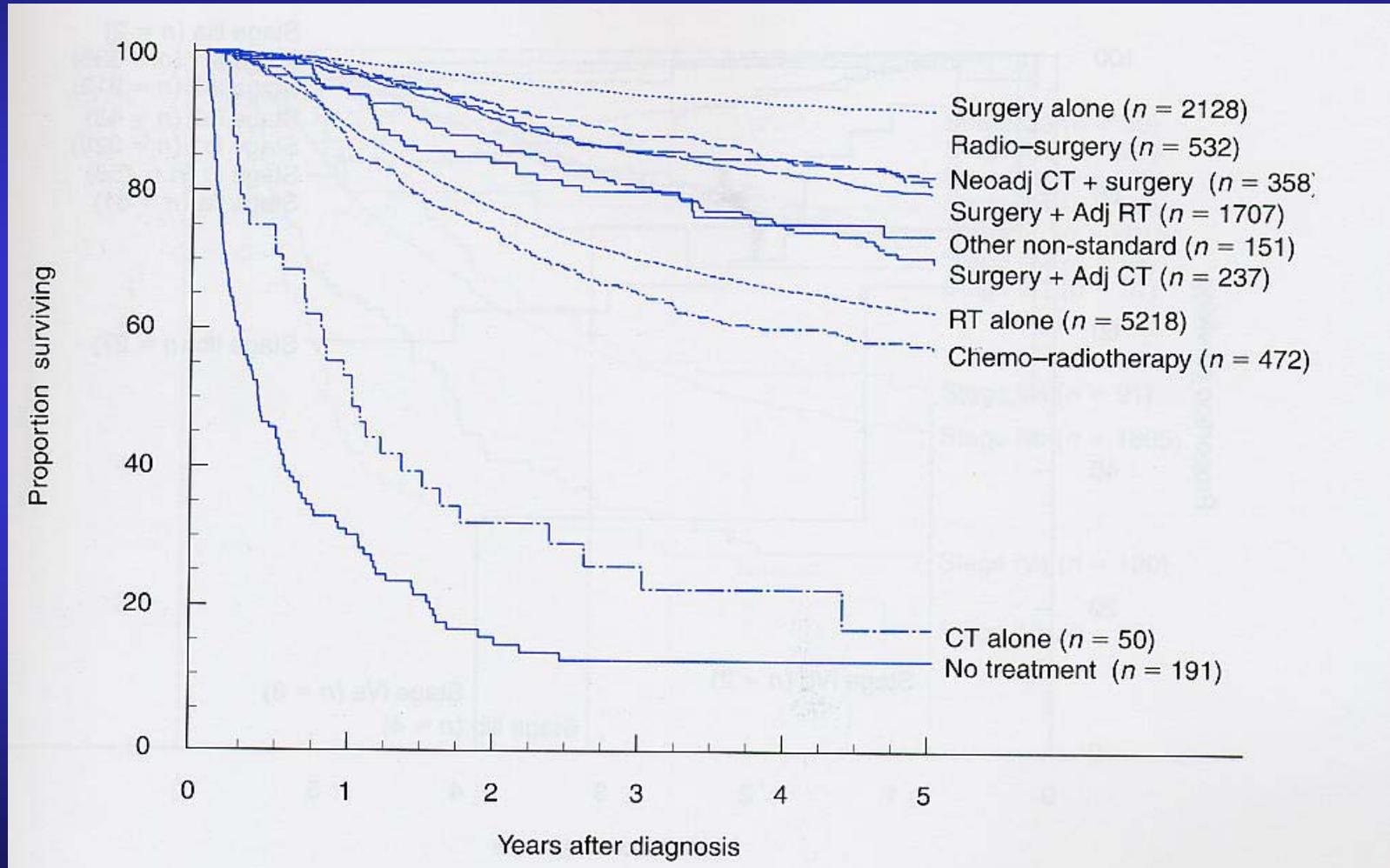
# Overall survival, n=11709



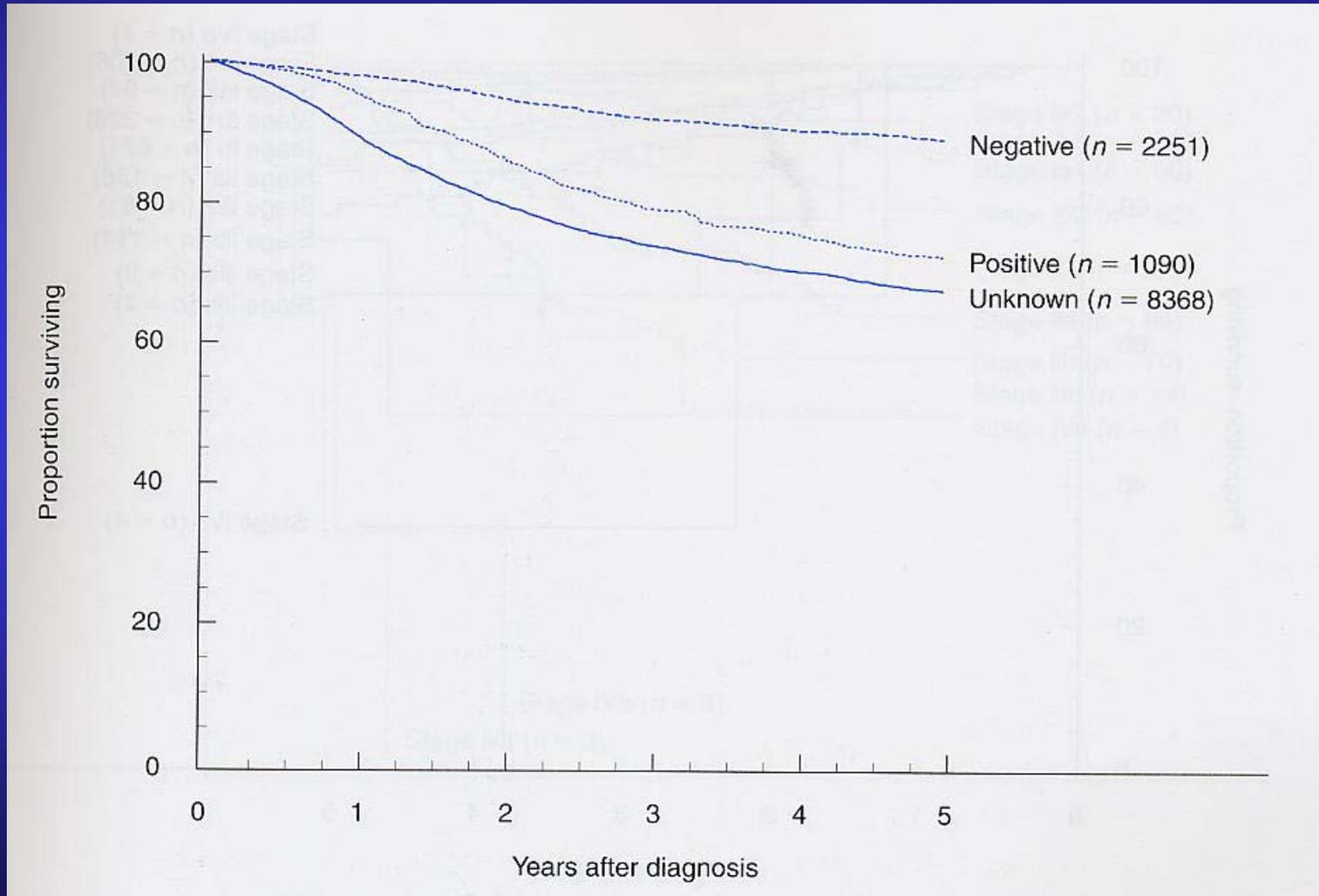
# Survival by FIGO stage.



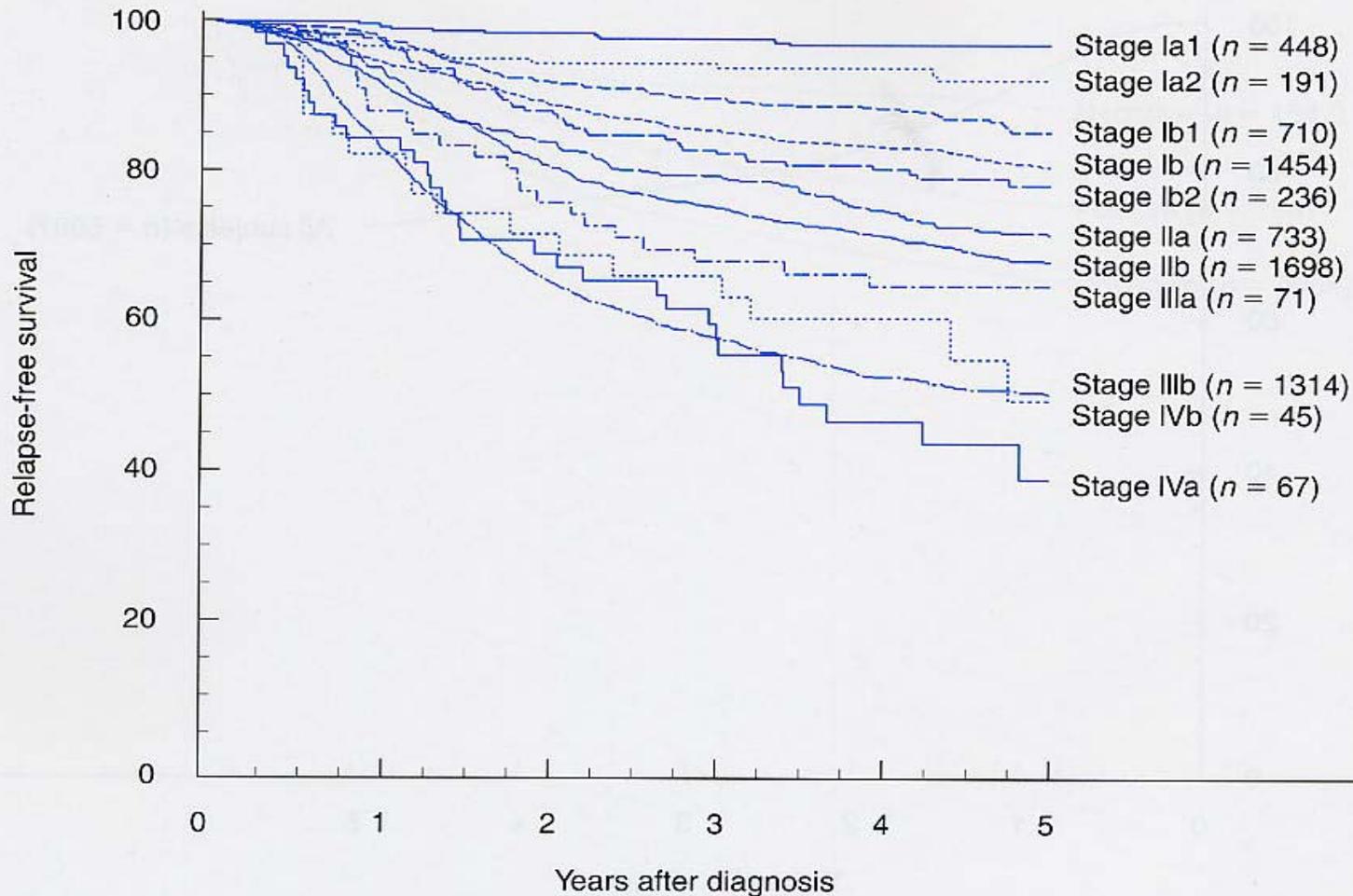
# Survival by mode of treatment.



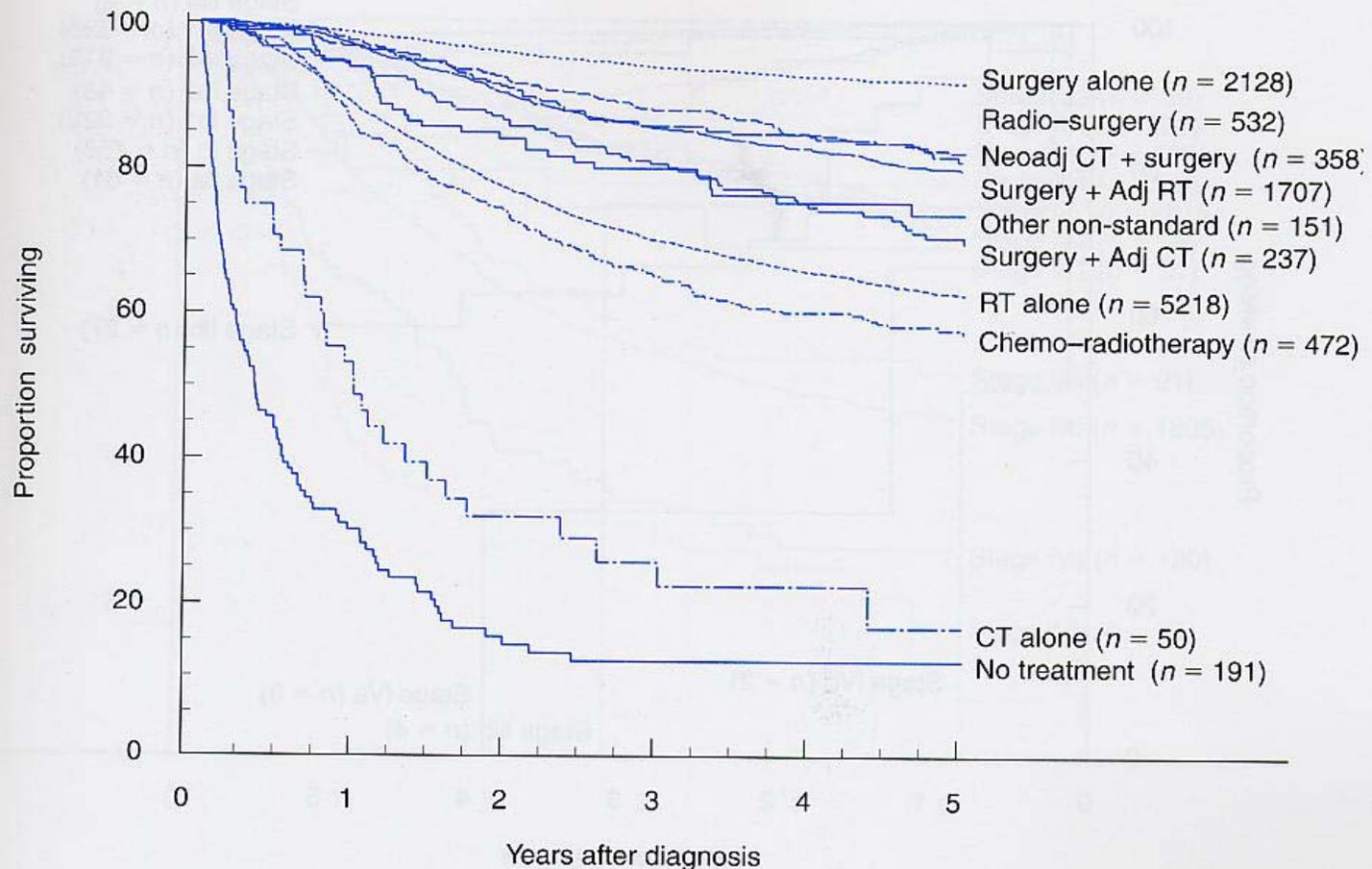
# Survival by lymphonodal status.



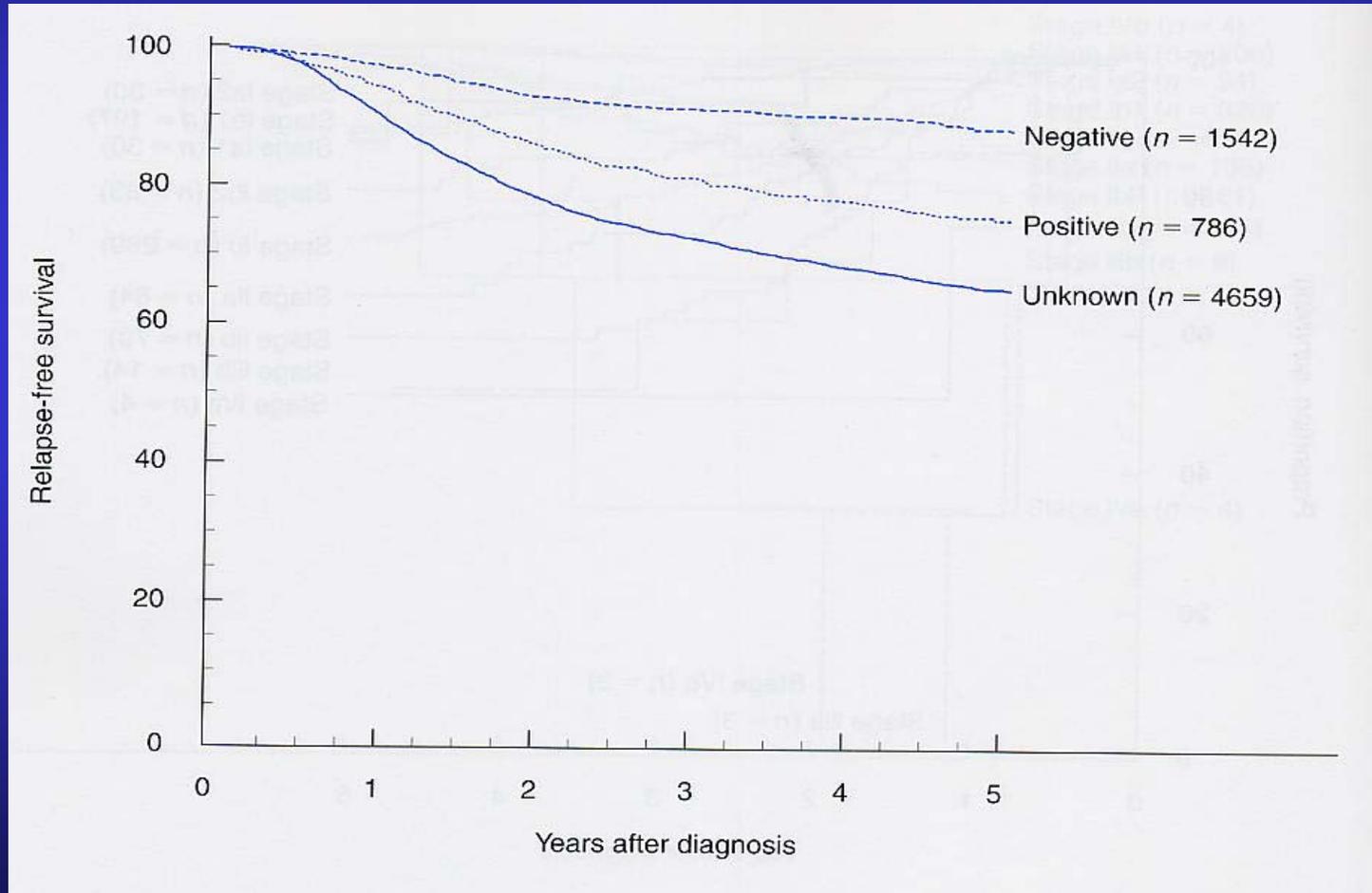
# Relapse free survival by FIGO stage.



# Relapse free survival by mode of treatment.



# Relapse free survival by lymphonodal status.



# Overall relapse-free survival (n=6987).

