

Risk of cholesteatoma among non-syndromic orofacial cleft patients and their siblings

A study based on four national registers

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Background

Orofacial clefts

- Cleft lip
- Cleft lip and palate
- Cleft palate

1-2 per 1000 live births in DK

Cholesteatoma

Surgically treated

5-10 per 100.000 person years in DK

on a national basis,

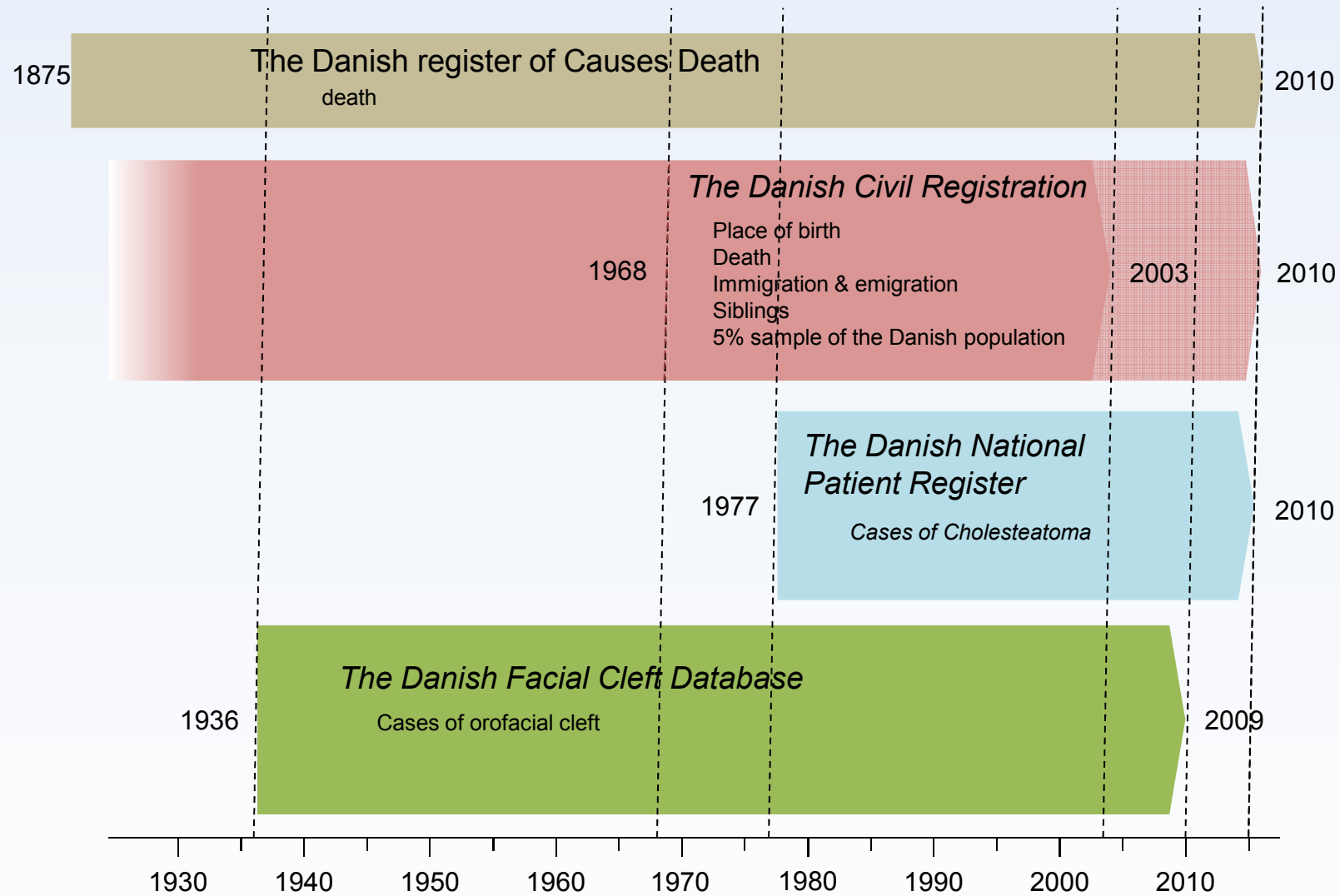
to estimate the risk of cholesteatoma surgery among

- 1) Orofacial cleft patients
- 2) Siblings to orofacial cleft patients

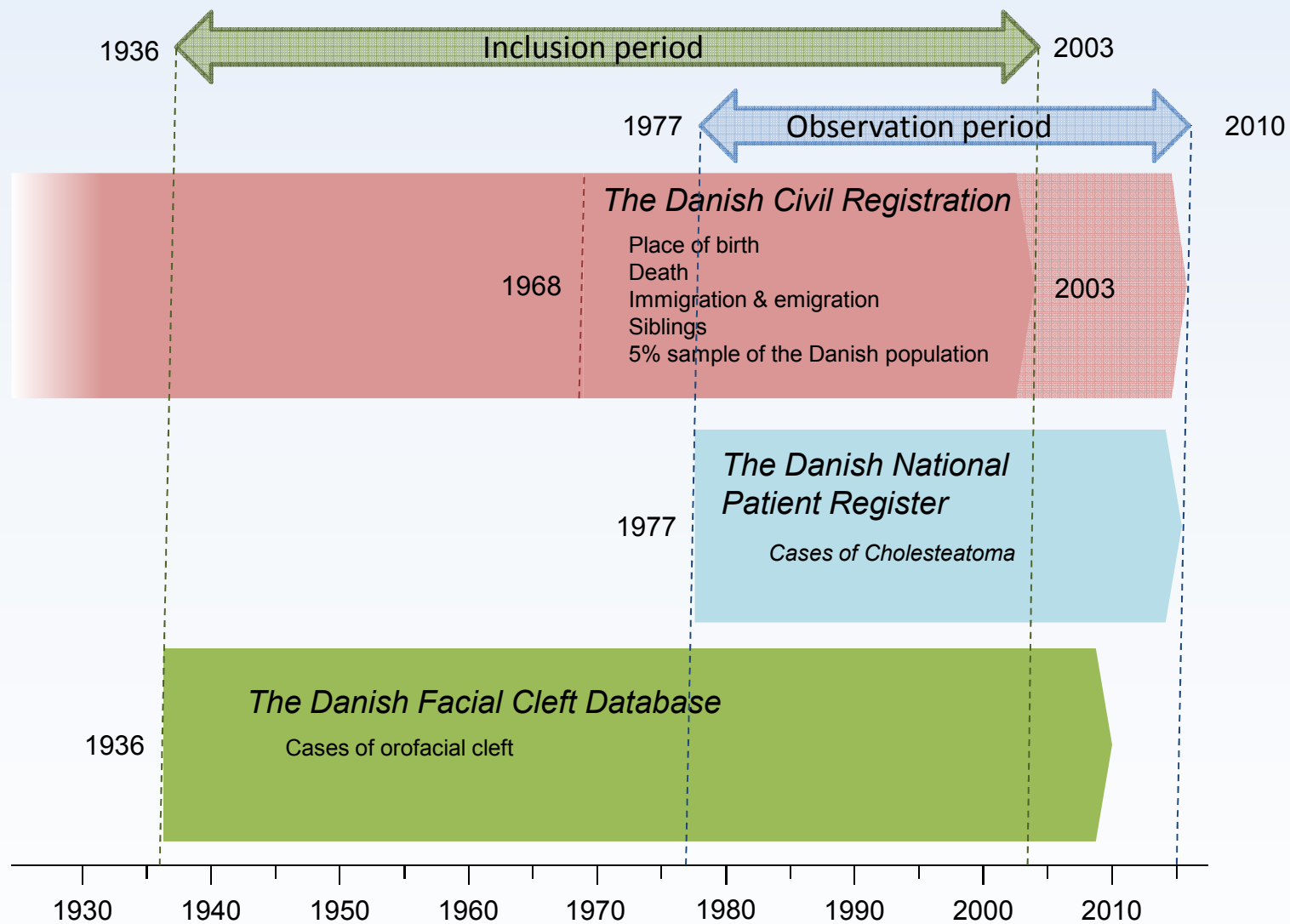
using survival analysis and

a comparison group of a random 5% sample of the Danish population

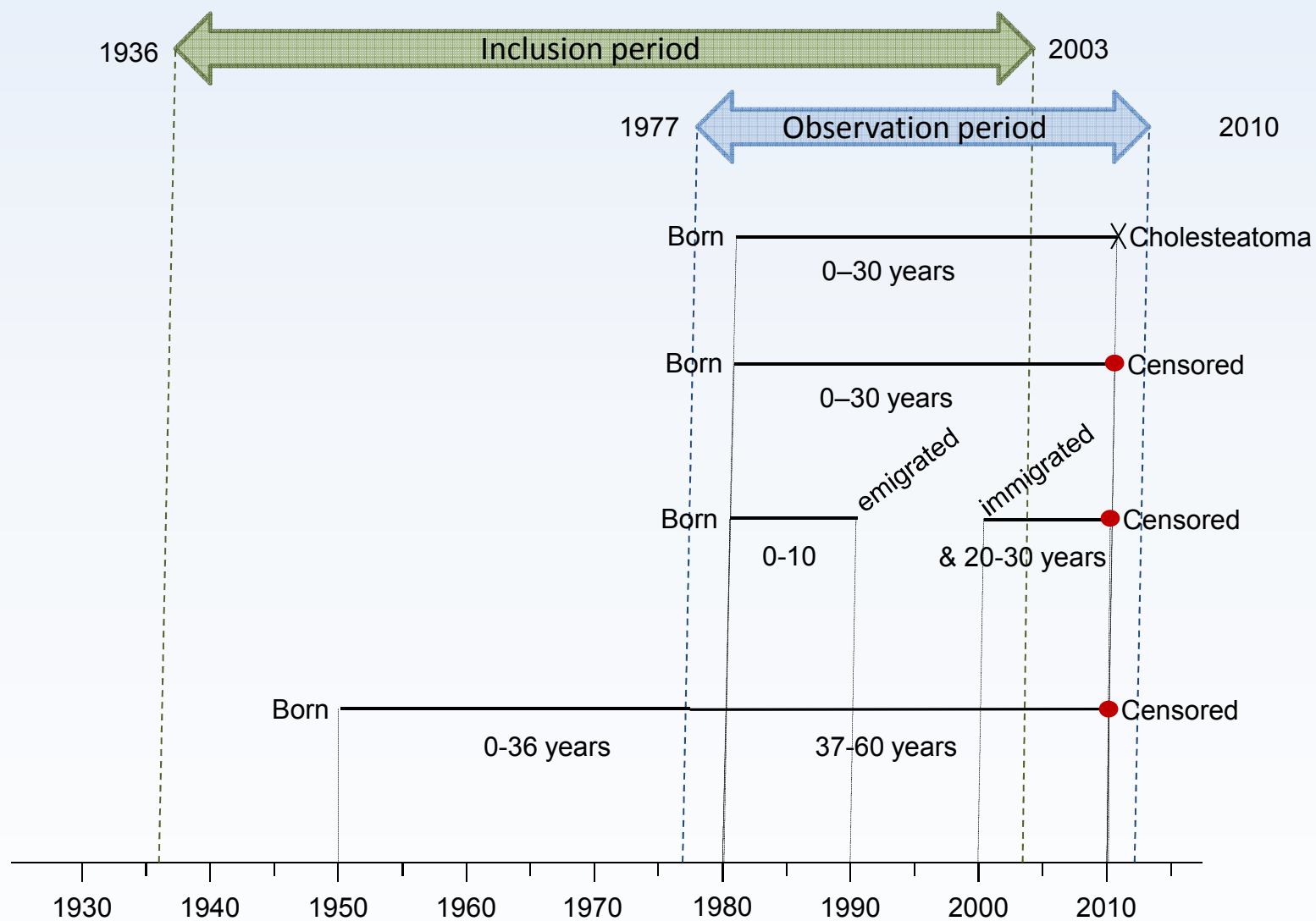
Material and Methods



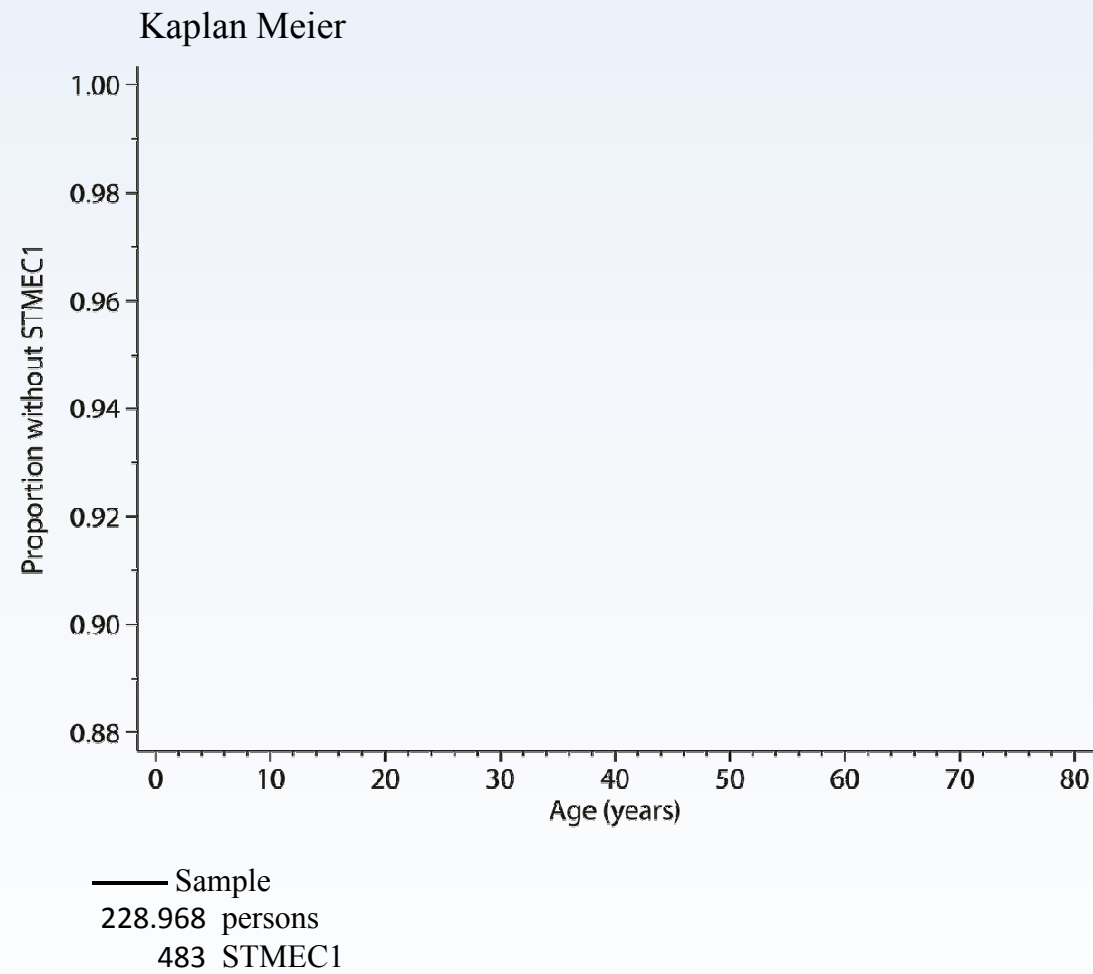
Material and Methods



Material and Methods

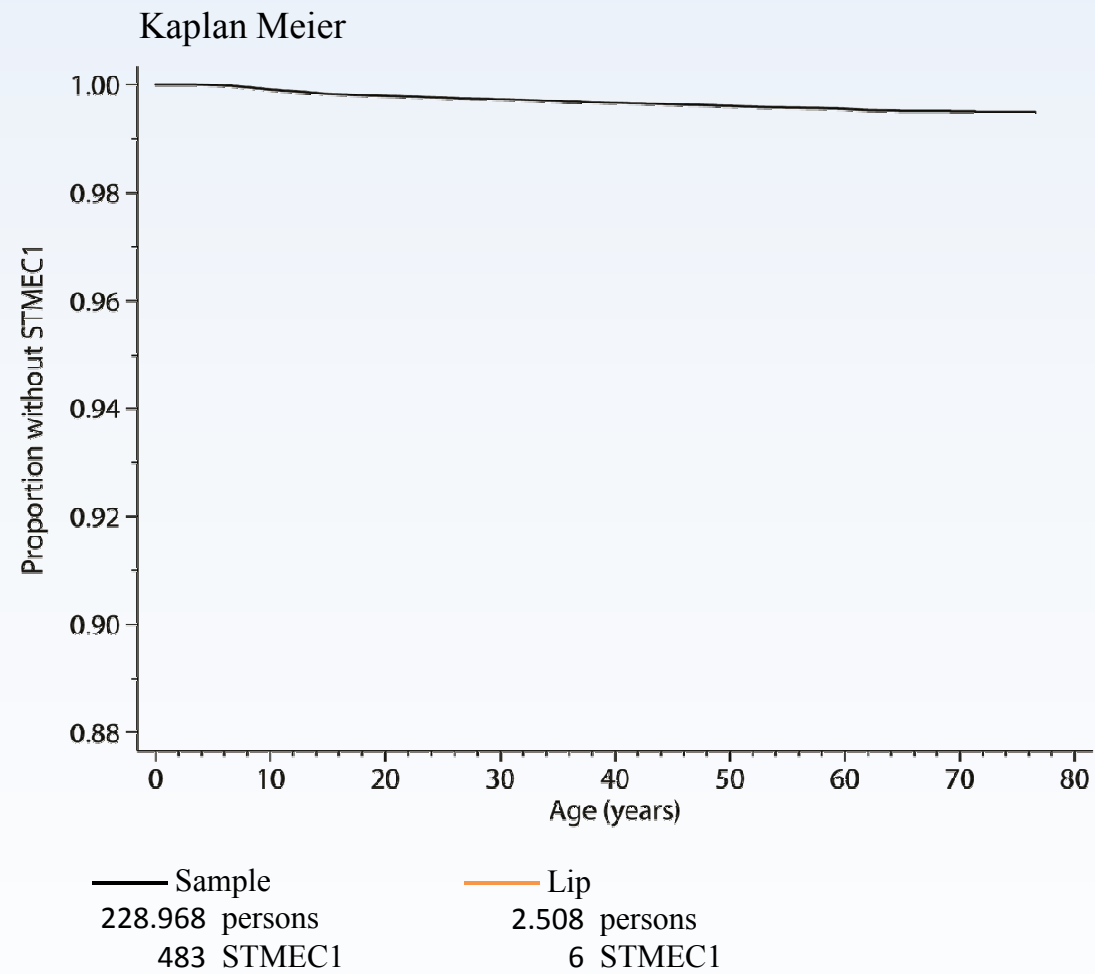


Results



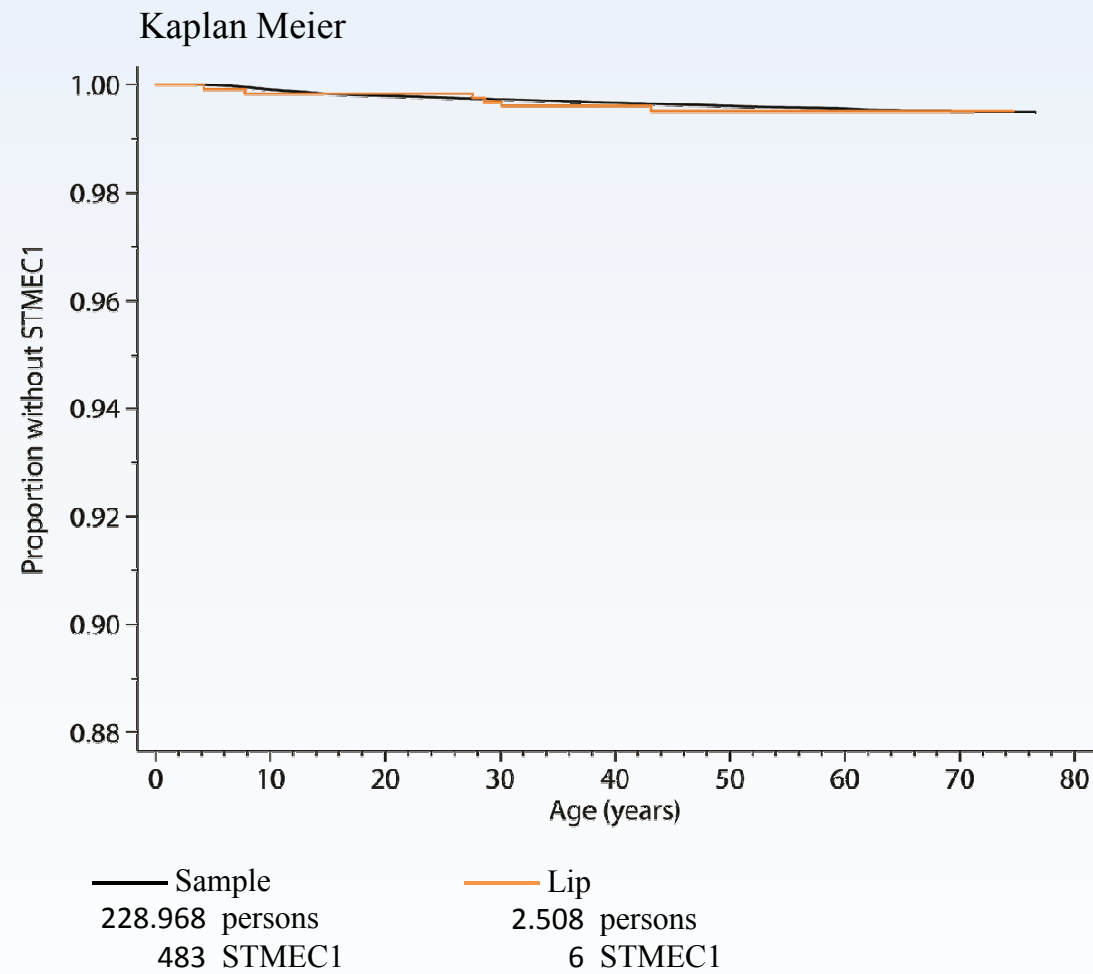
STMEC1: First-time surgically treated middle ear cholesteatoma

Results



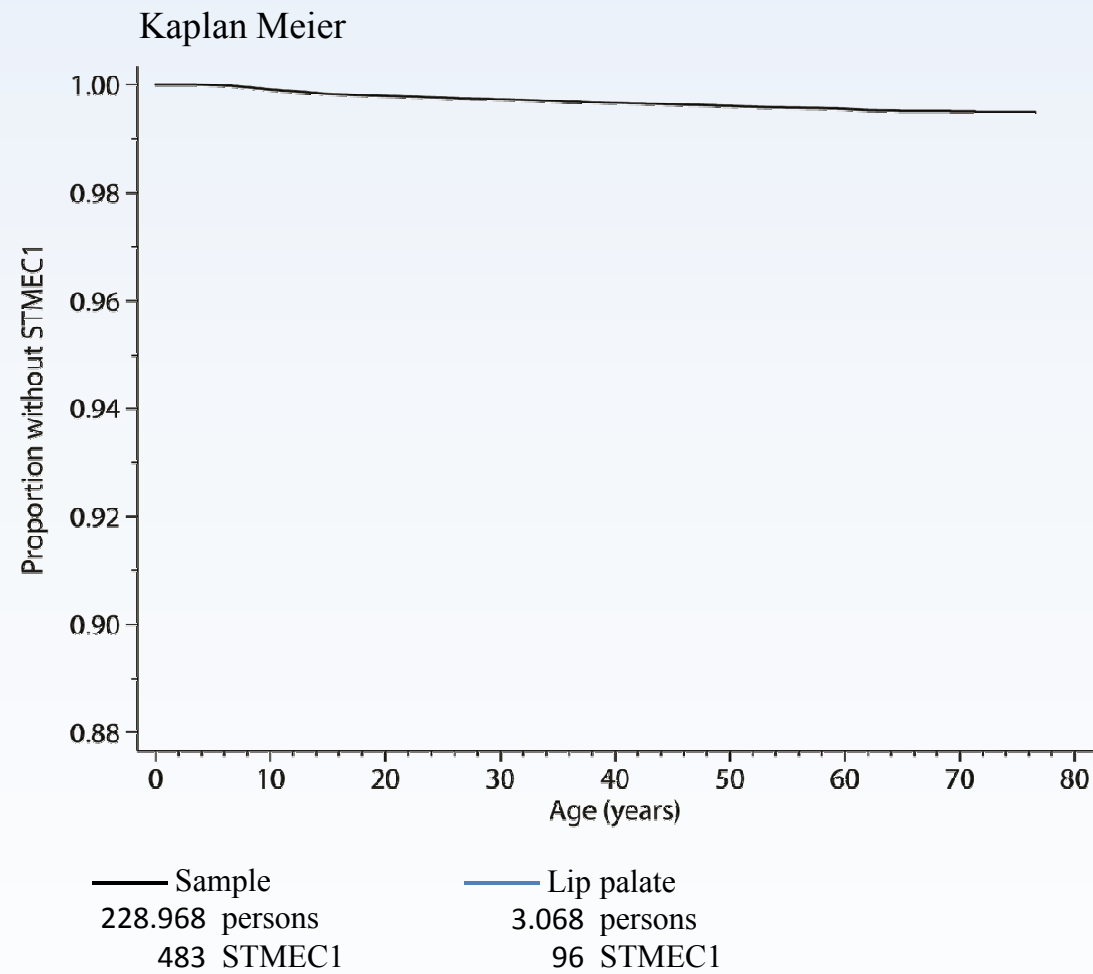
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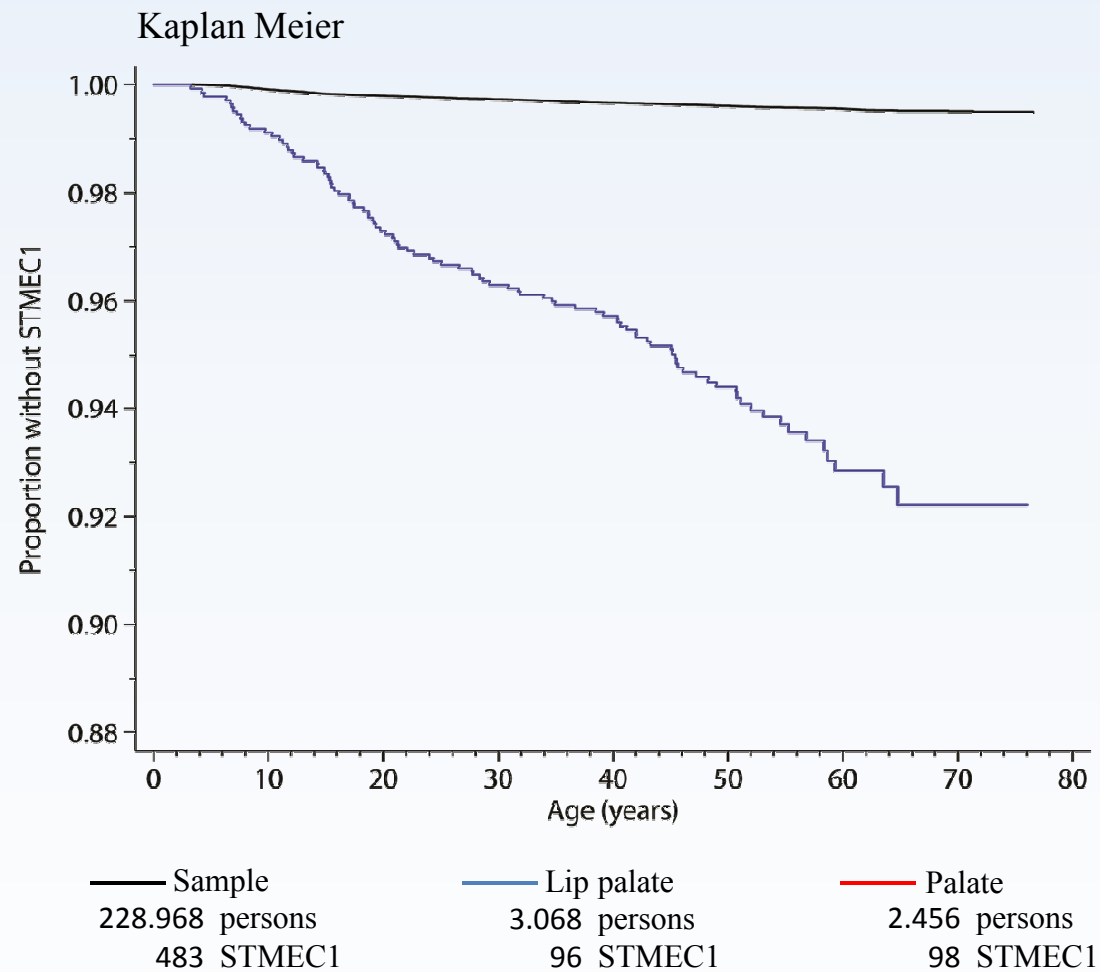
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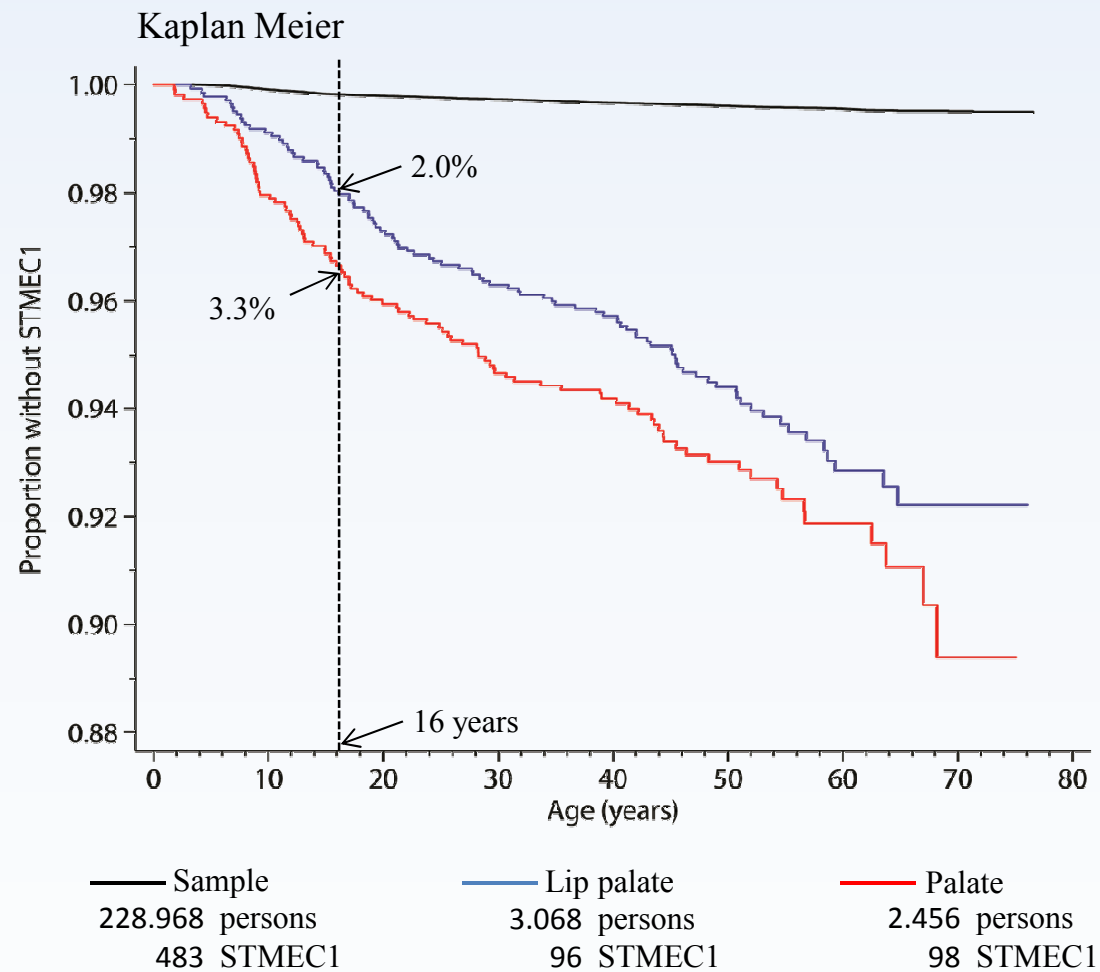
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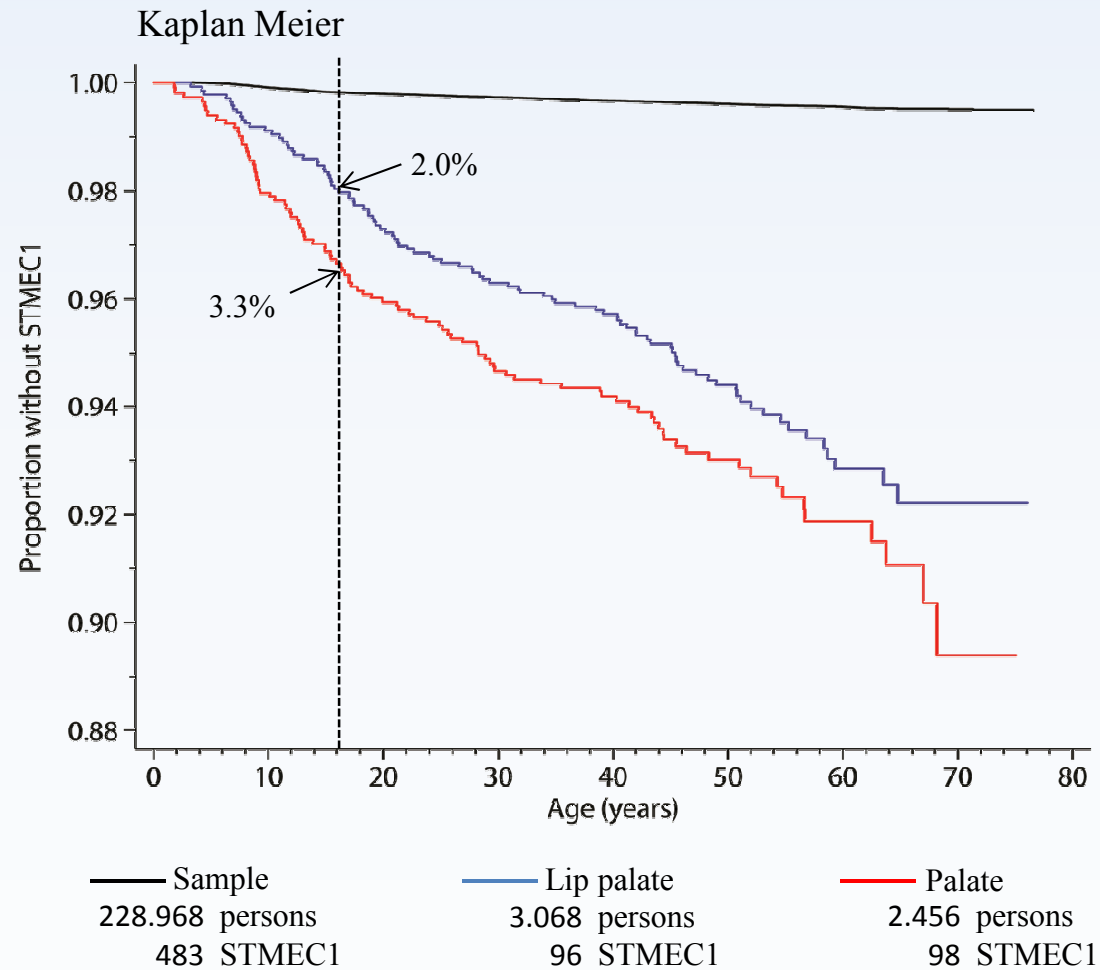
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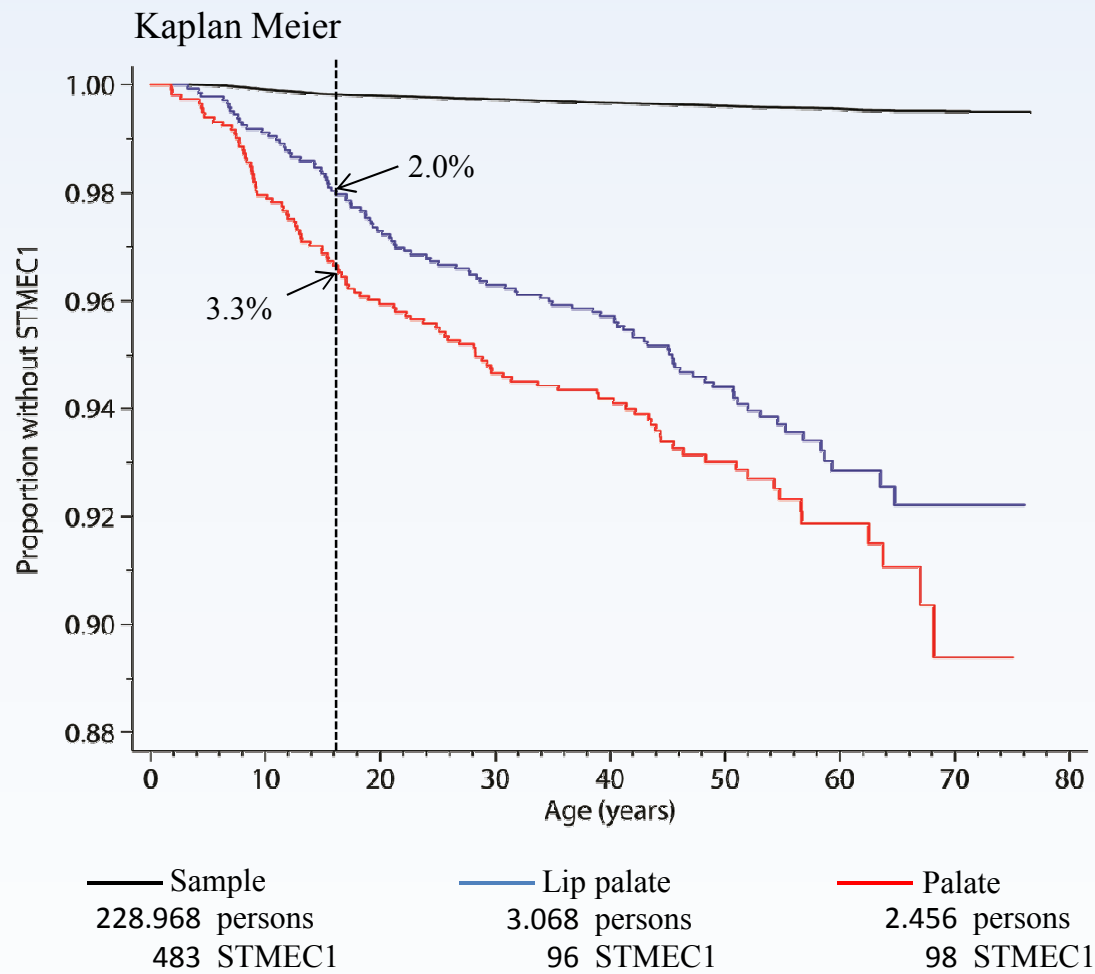


HR for STMEC1 by cleft-type using Cox
regression analysis

STMEC1: First-time surgically treated middle ear cholesteatoma

HR: Hazard rate

Results



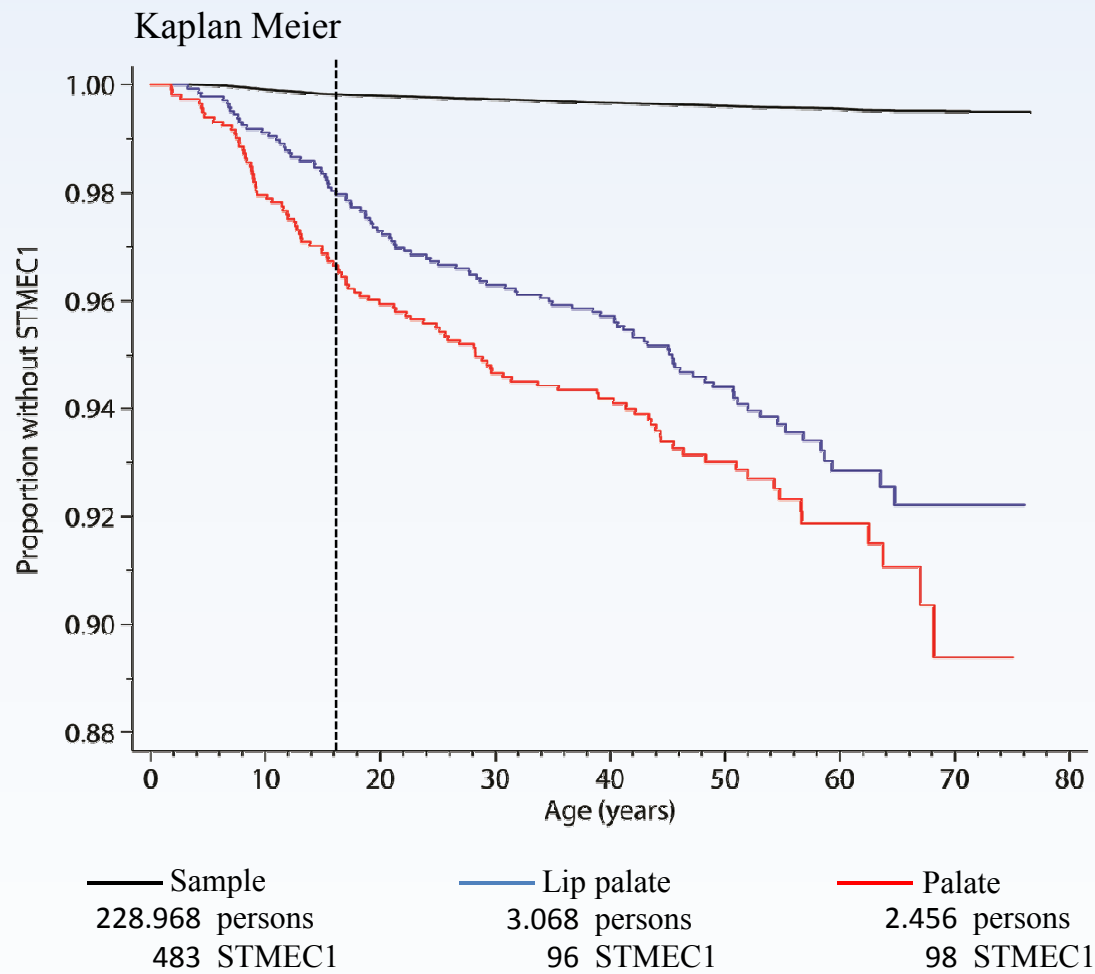
HR for STMEC1 by cleft-type using Cox regression analysis

	HR	95% CI
All		
Cleft lip and palate	14	12-18
Cleft palate	19	16-24

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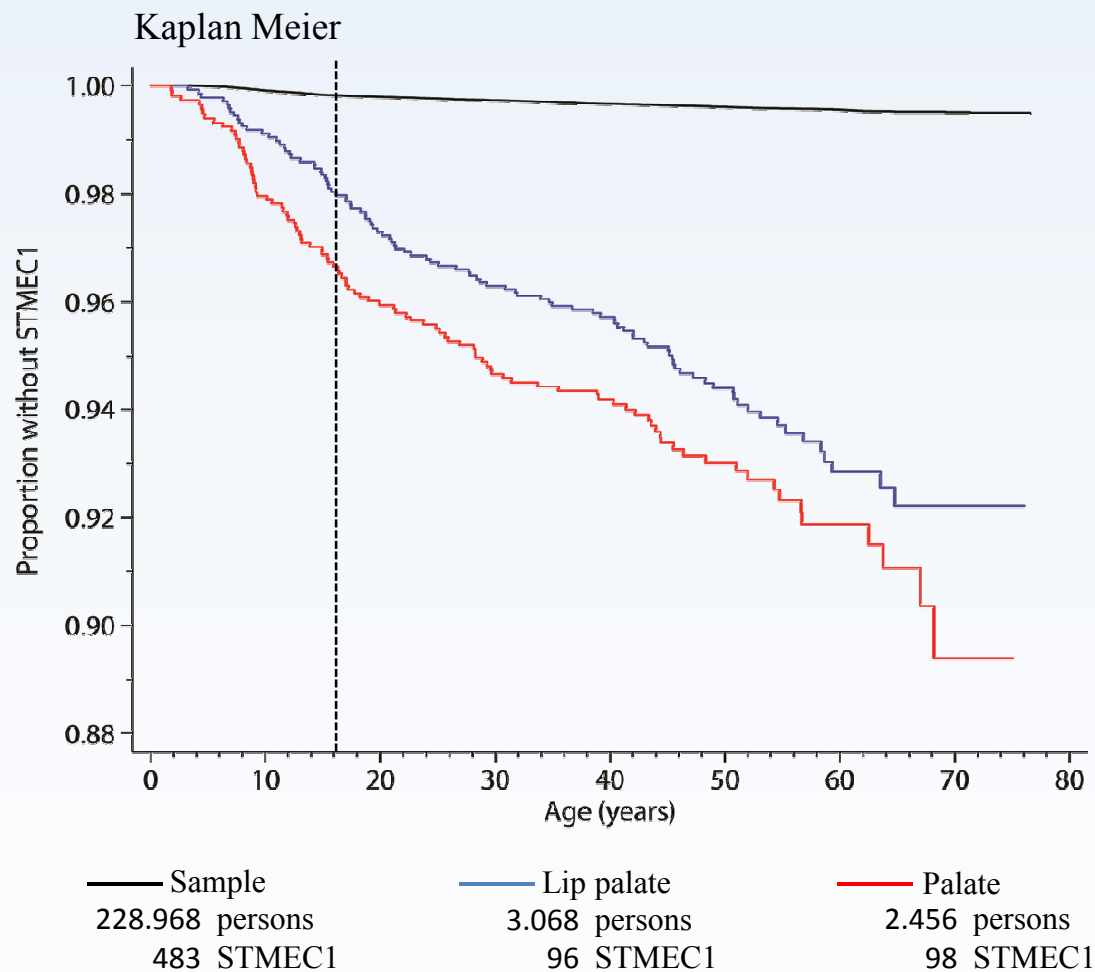
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Cleft palate	19	16-24
Children		
Cleft lip and palate	11	7-16
Cleft palate	19	14-27

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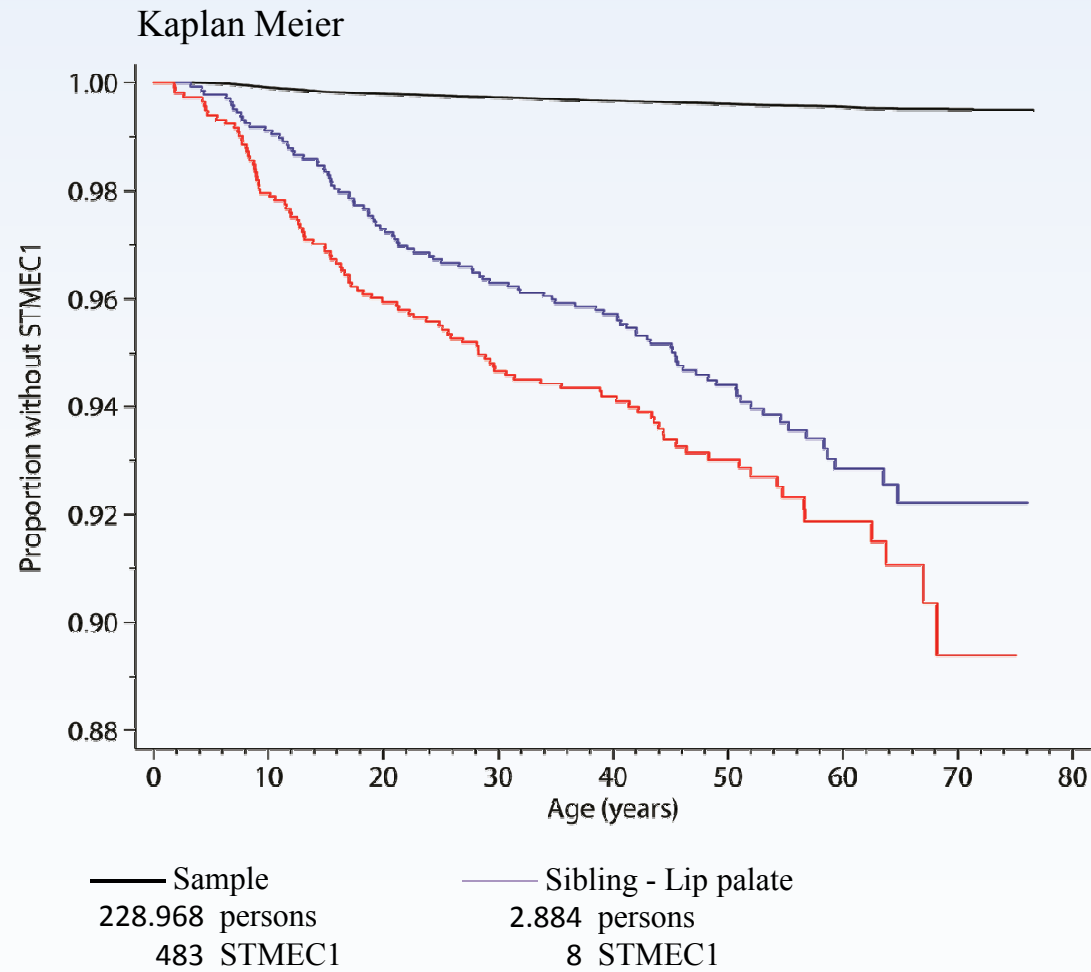
HR for STMEC1 by cleft-type using Cox
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Children		
Cleft lip and palate	11	7-16
Cleft palate	19	14-27
Adults		
Cleft lip and palate	16	13-22
Cleft palate	19	15-26

STMEC1: First-time surgically treated middle ear cholesteatoma

HR: Hazard rate

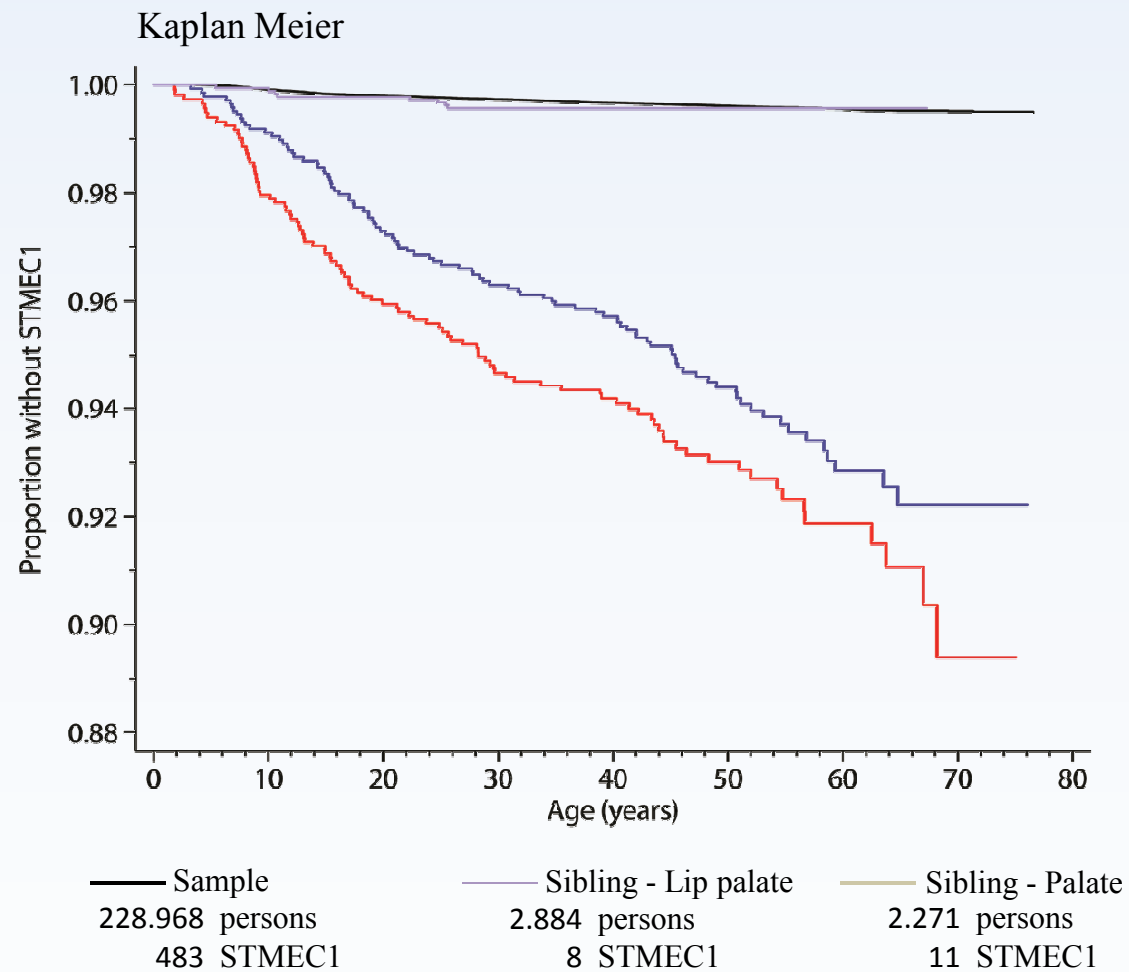
Results



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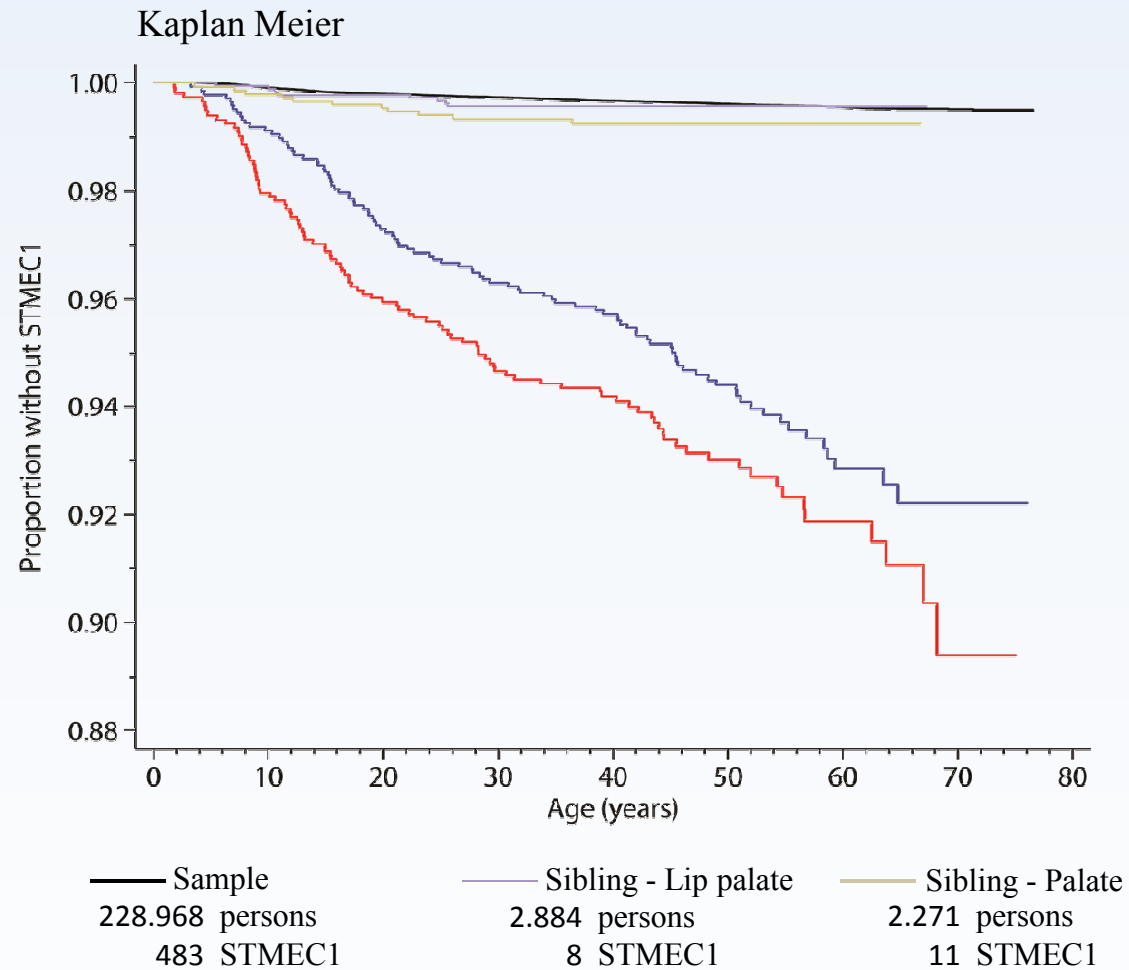
Results



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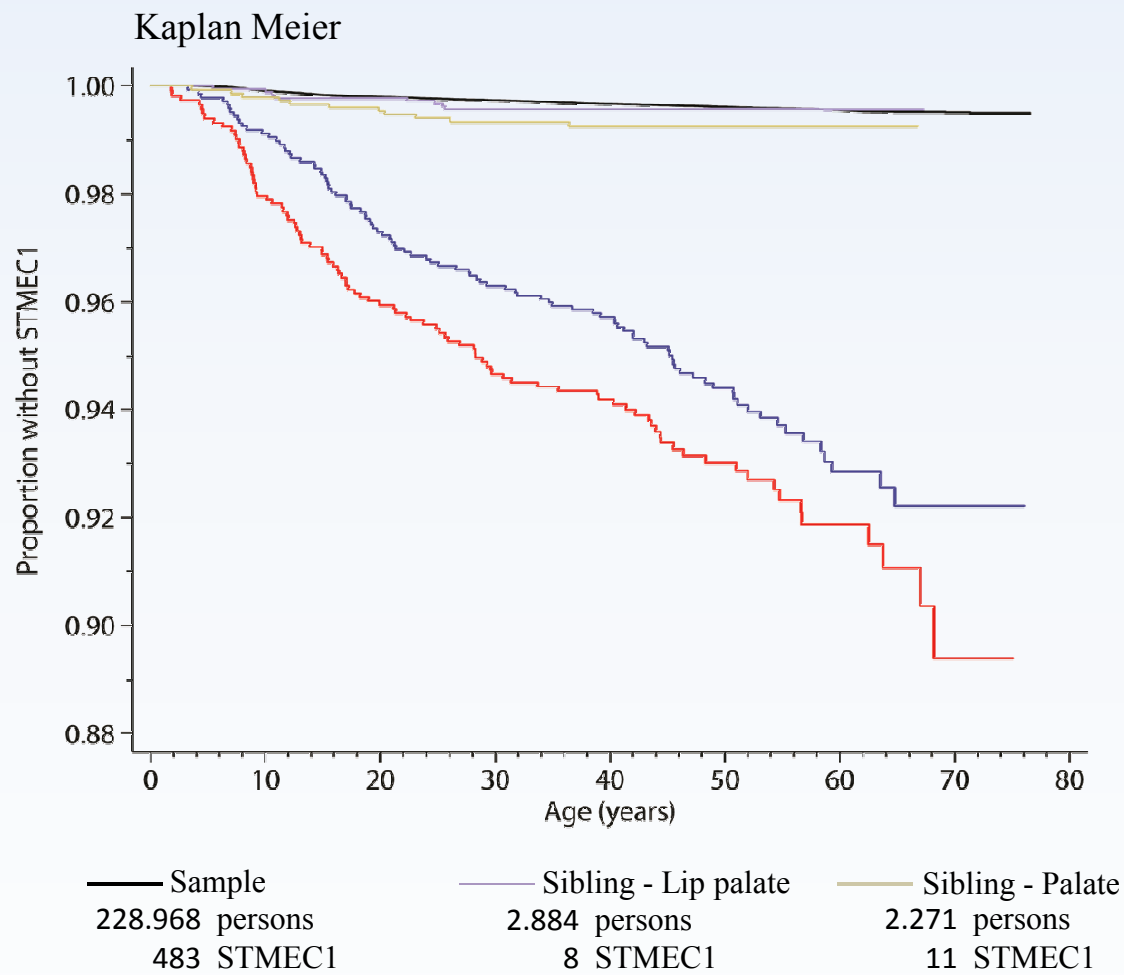


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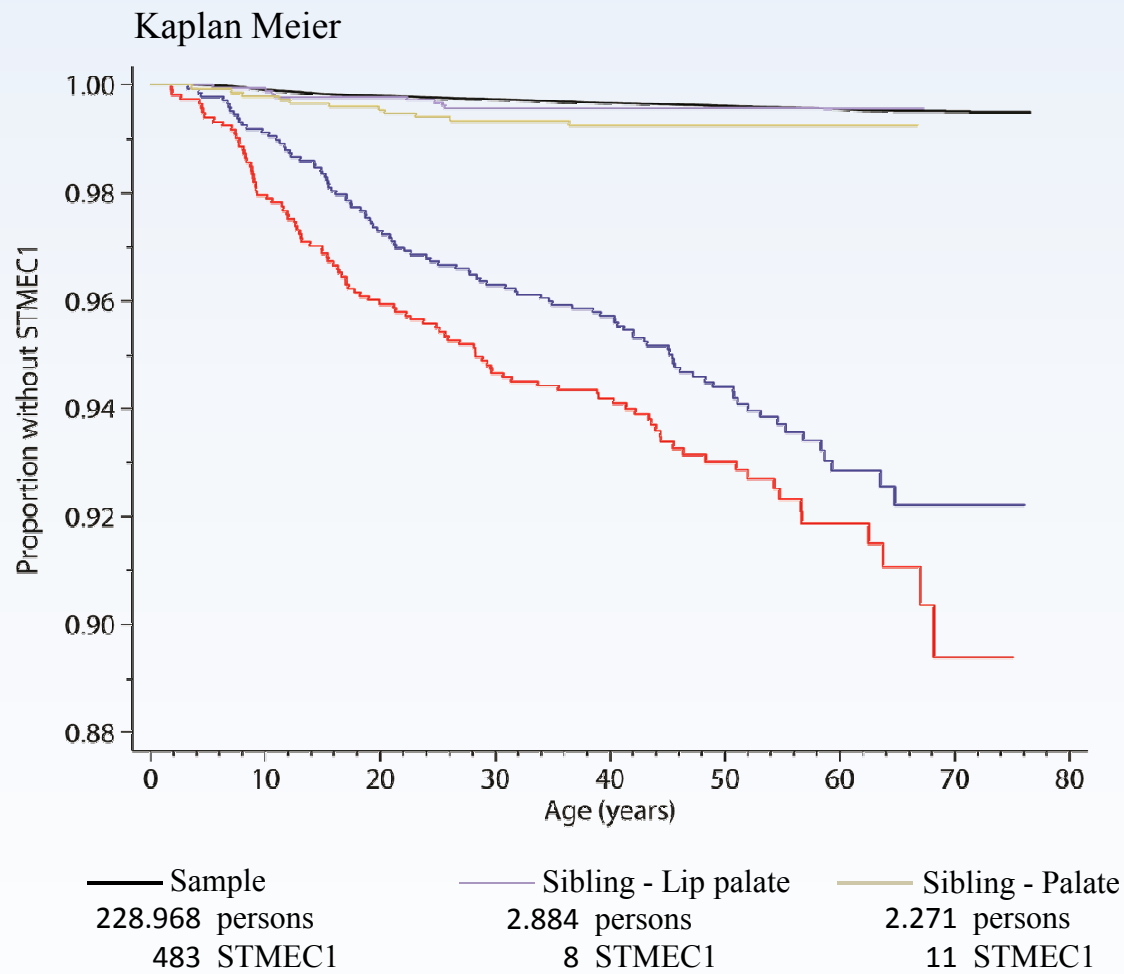


HR for STMEC1 by cleft-type using Cox regression analysis		
	HR	95% CI
All		
Sibling with		
Cleft lip and palate	1.3	0.7-2.7
Cleft palate	2.3	1.3-4.2
P-value 0.007		

STMEC1: First-time surgically treated middle ear cholesteatoma

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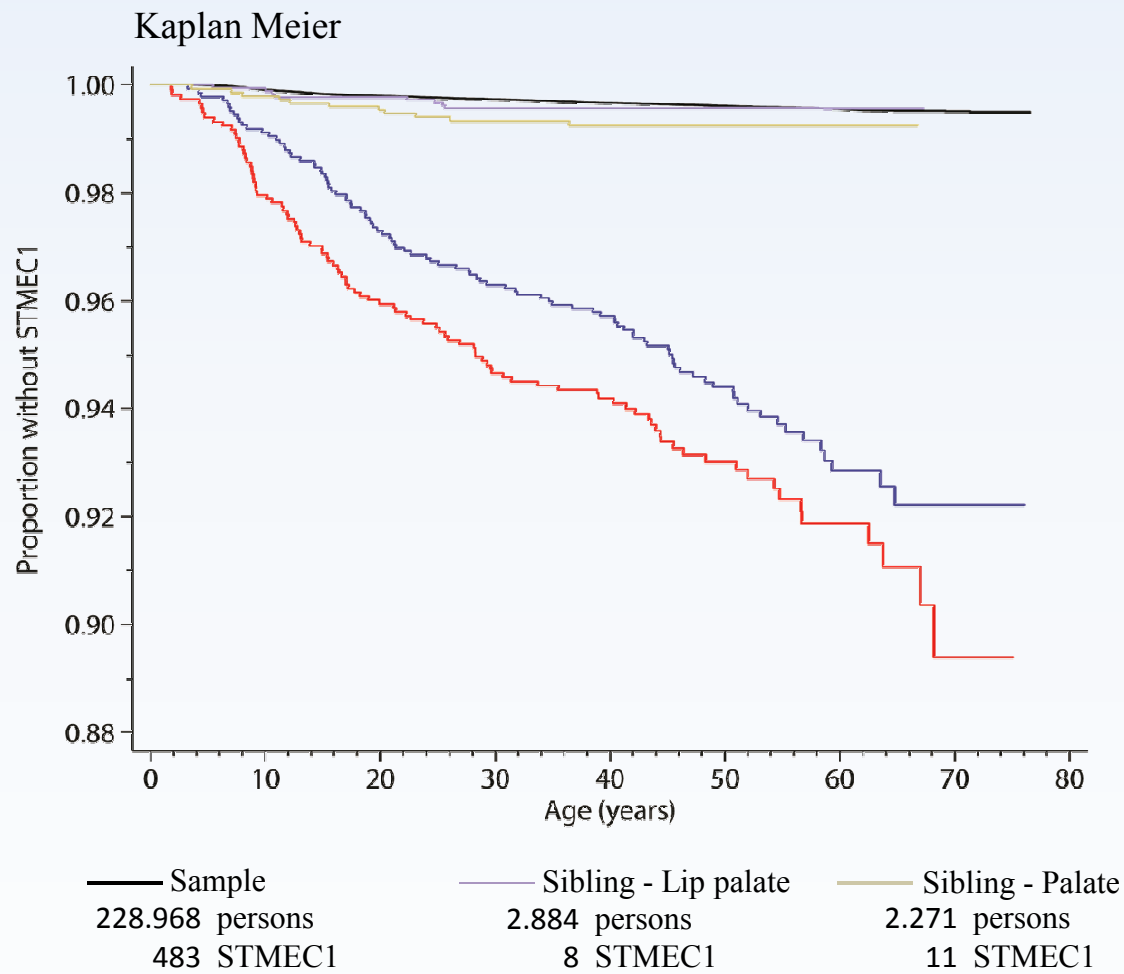
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Cleft palate	2.3	1.3-4.2
	P-value 0.007	
Children		
Sibling with		
Cleft lip and palate	1.3	0.5-3.4
Cleft palate	2.3	1.02-5.2
	P-value 0.046	

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Cleft palate	2.3	1.3-4.2
	P-value 0.007	
Children		
Sibling with		
Cleft lip and palate	1.3	0.5-3.4
Cleft palate	2.3	1.02-5.2
	P-value 0.046	
Adults		
Sibling with		
Cleft lip and palate	1.4	0.5-3.7
Cleft palate	2.3	0.9-5.6
	P-value 0.068	
HR: Hazard rate		

Summing up

~ 8,000 patients with orofacial cleft

~ 200,000 sample persons without cleft

Additional number corresponding siblings

Cleft palate: 20-fold risk of cholesteatoma

Cleft lip: as background population

Cleft lip and palate: Less than cleft palate

Cumulative proportion with surgically treated cholesteatoma at 16 years of age:

3.3% in cleft palate

2.0% in cleft lip and palate

Siblings to cleft palate: 2-fold risk of cholesteatoma