

HEALTH DATA ON RARE AND HETEROGENEOUS DISEASES: INCIDENCE OF SARCOMAS AND HISTOLOGICAL SUBTYPES IN GERMANY

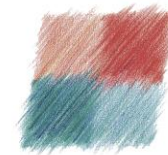
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BACKGROUND

- Sarcomas: Rare and heterogeneous (origin, morphology, molecular genetic changes)
- Two main groups:
 - Soft tissue sarcomas (< 1% of all invasive cancers)
 - Bone sarcomas (0,02% of all invasive cancers)
- Routine analyses in cancer registration are mostly not stratified according to histology and only consider specific sites
 - The population-based incidence of sarcoma and its histological subtypes in Germany is unknown
- Aim: Incidence of sarcoma of all sites with data from the German epidemiological cancer registries



METHODS

- Pooled data from the German Centre for Cancer Registry Data at the Robert Koch Institute, Berlin
- Inclusion criteria
 - » Year of diagnosis 2012, for trend analyses 2003-2012 (Data call: December 2014);
 - » Trend analyses: Annual Percentage Changes (APC; Joinpoint)
 - » All German cancer registries with sufficient completeness → 10 out of 11, covering 87% of the German population
 - » All malignant sarcomas according to the RARECARE Project and to the WHO classification
 - » Gastrointestinal stromal tumours (GIST) of uncertain behaviour
- Sensitivity analysis (Exclusion of certain histologies)

* Stiller CA et al. Descriptive epidemiology of sarcomas in Europe: report from the RARECARE project. Eur J Cancer 2013; 49: 684-95



RESULTS (1)

Absolute frequencies and incidence of sarcoma subtypes in Germany, 2012, Men

Sarcoma entity	n	%	Incidence per 100,000		Age (Median)
			Crude	Age standardized*	
Soft tissue sarcoma	2068	67.9	6.1	4.6	67.9
Bone sarcoma	283	9.3	0.8	0.8	50.3
GIST	694	22.8	2.0	1.4	69.3
All	3045	-	8.9	6.8	67.3

*European Standard



RESULTS (2)

Absolute frequencies and incidence of sarcoma subtypes in Germany, 2012, Women

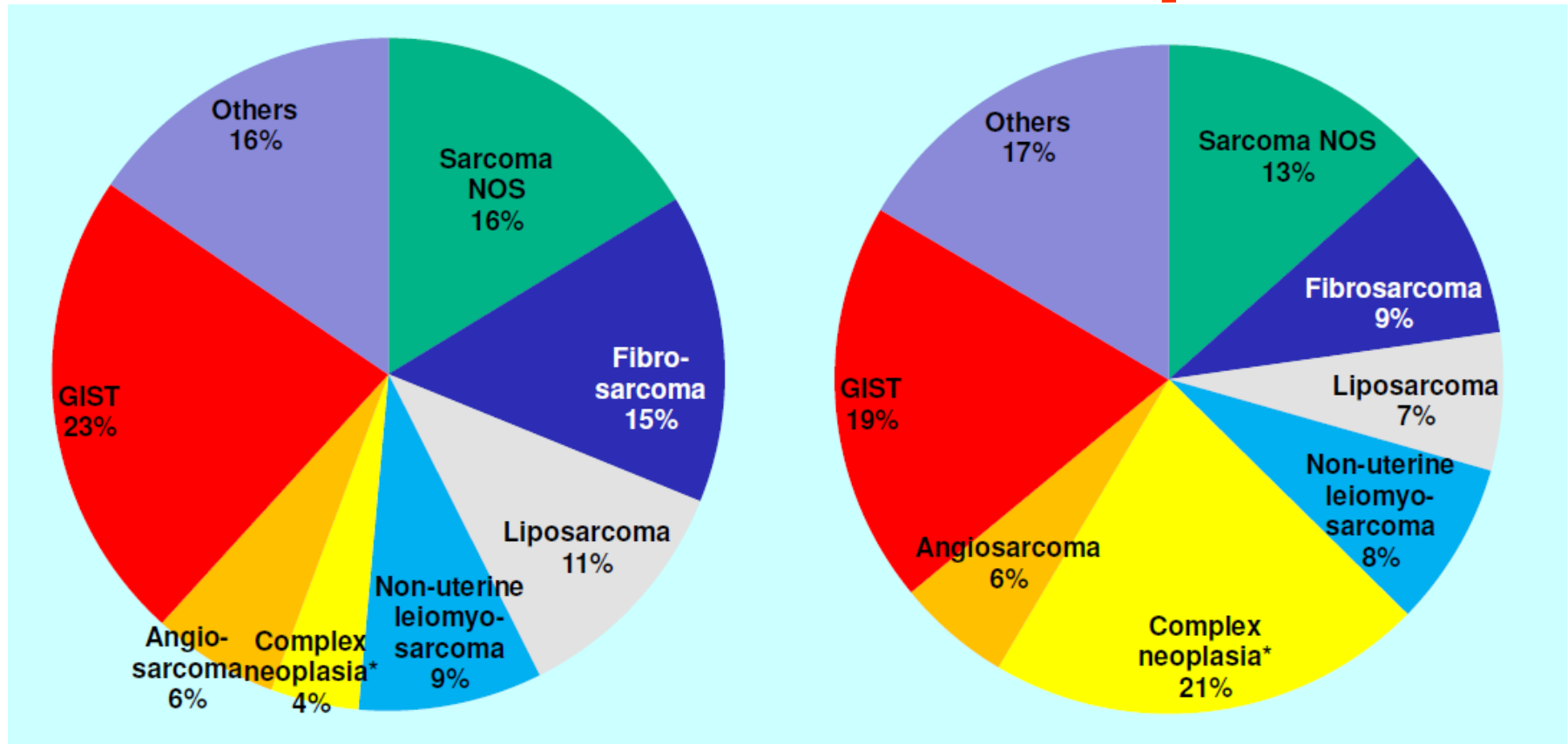
Sarcoma entity	n	%	Incidence per 100,000		Age (Median)
			Crude	Age standardized*	
Soft tissue sarcoma	2486	73.4	7.0	4.7	68.4
Bone sarcoma	241	7.1	0.7	0.6	51.5
GIST	658	19.4	1.8	1.1	71.9
All	3385	-	9.5	6.4	68.7

*European Standard



RESULTS (3)

Percental distribution of histological subtypes, Germany, 2012

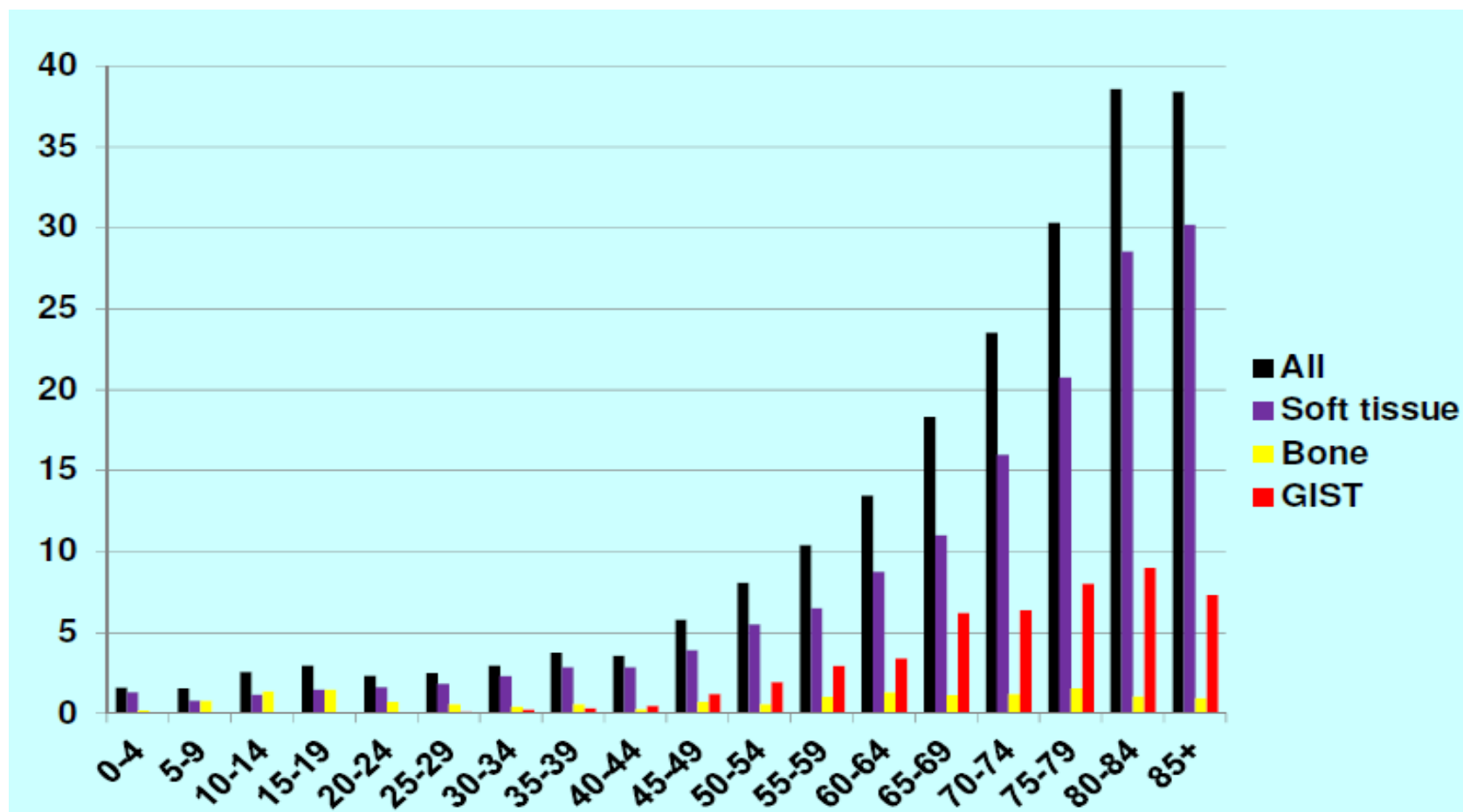


*Mixed and stromal neoplasia



RESULTS (4)

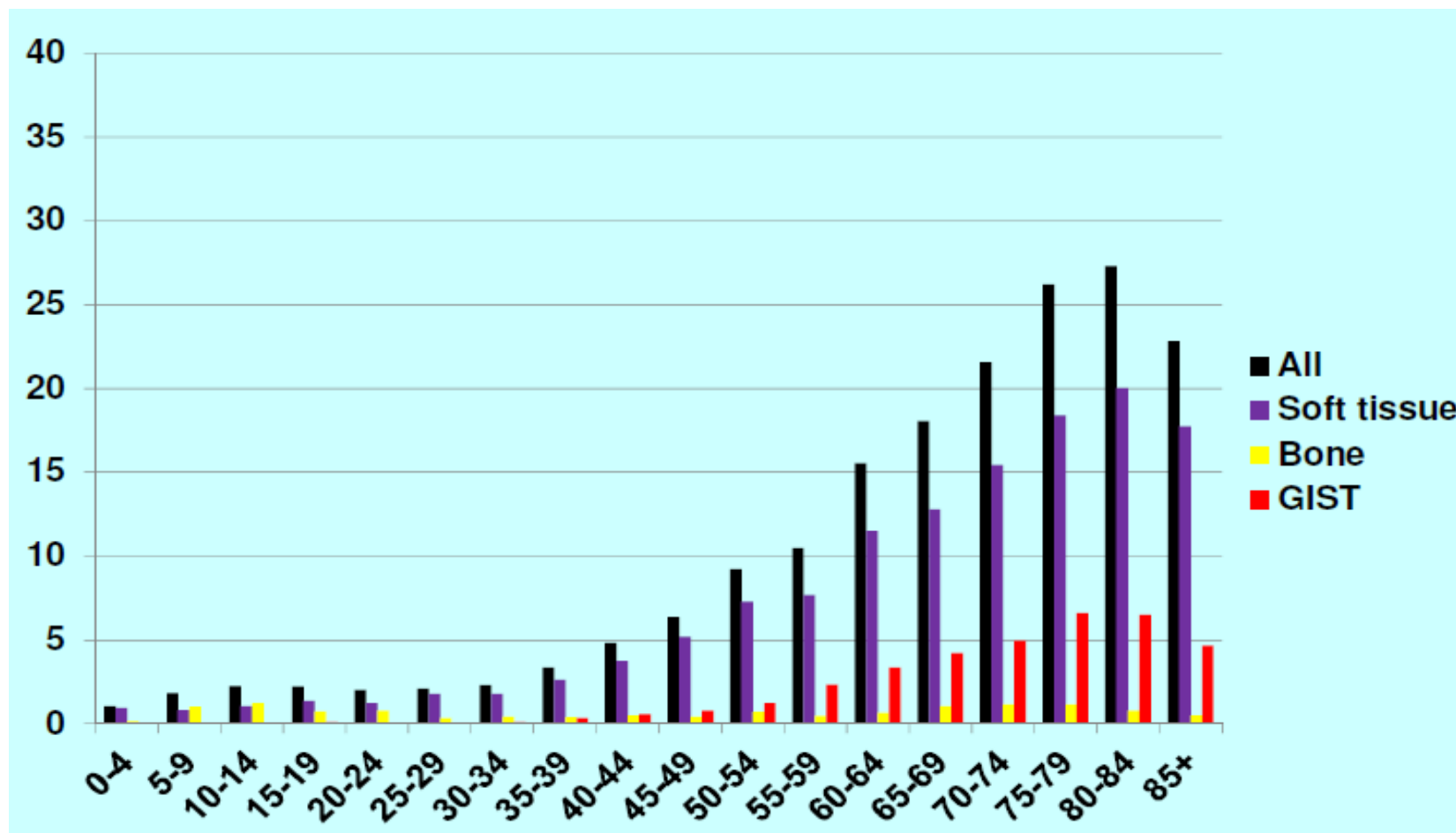
Age specific incidence per 100,000 in sarcoma subtypes in Germany, 2012, Men





RESULTS (5)

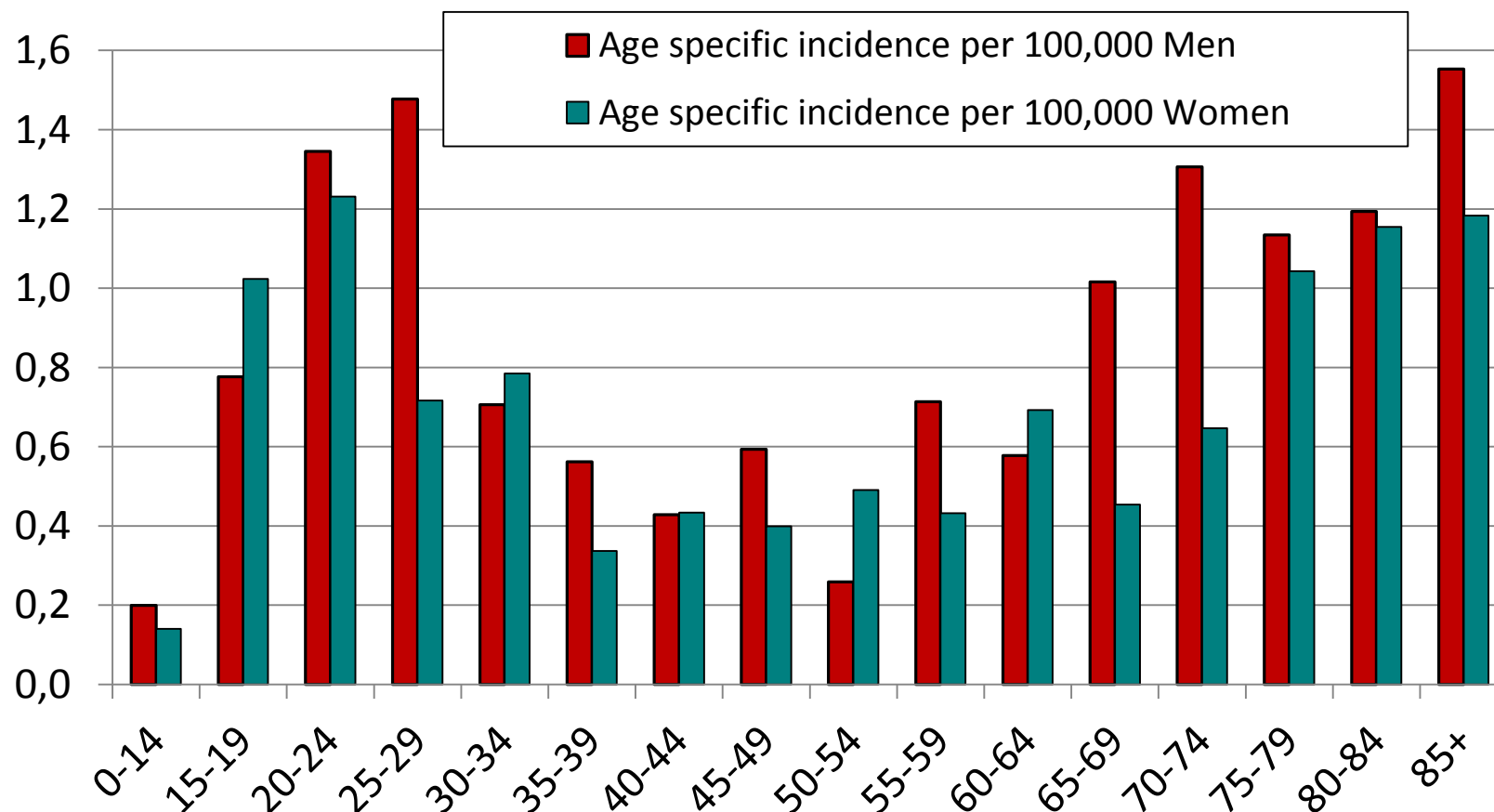
Age specific incidence per 100,000 in sarcoma subtypes in Germany, 2012, Women





RESULTS (6)

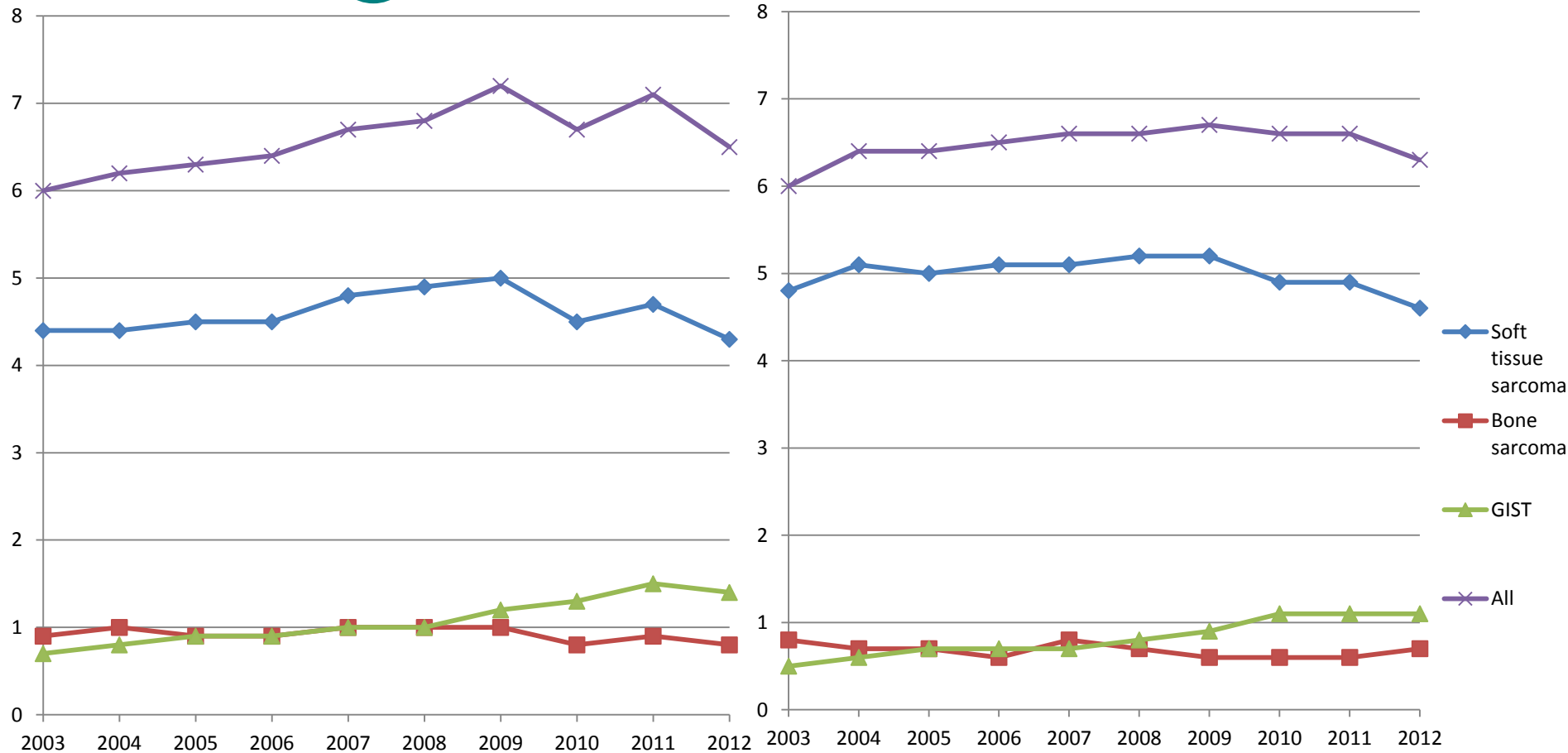
Age specific incidence in bone sarcoma, Germany, 2012





RESULTS (7)

Trends of incidence rates for sarcoma entities (per 100,000; age-standardized*), 2003-2012



*European Standard



DISCUSSION

- Limitations:
 - Possible lack of completeness (estimates only for ICD-10 C41-C49)
 - High proportion of “sarcomas not otherwise specified”
 - Exclusion of cases with unknown histology

- Strength:
 - First detailed analysis of a German wide population-based incidence of sarcomas being comparable to the incidence detected in the RARECARE Project and other studies
 - High external validity: 87% of the German population covered
 - High number of cases allowed for detailed stratified analyses, e.g. by individual histologies



DISCUSSION

- First detailed analysis of a German wide population-based incidence of sarcomas being comparable to the incidence detected in the RARECARE Project and other studies
- Significant increase in incidence for all sarcomas due to a significant increase in incidence of GIST for both sexes, which corresponds well with results of other studies
- median age at diagnosis: five to ten years higher than in the literature for all entities. (partly due to the present study reporting more recent data with an ageing society in general?)



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