

Ruhr-University Bochum

European Conference on Colon Cancer Prevention in Europe

Colon cancer screening in Germany

W. Schmiegel

Medizinische Universitätsklinik
Knappschaftskrankenhaus Bochum &
Abtlg. Gastroenterologie/Hepatologie
Universitätsklinik Bergmannsheil

CRC screening Germany

before October 2002:

≥ 45 annual FOBT

starting October 2002:

50 – 54 annual FOBT

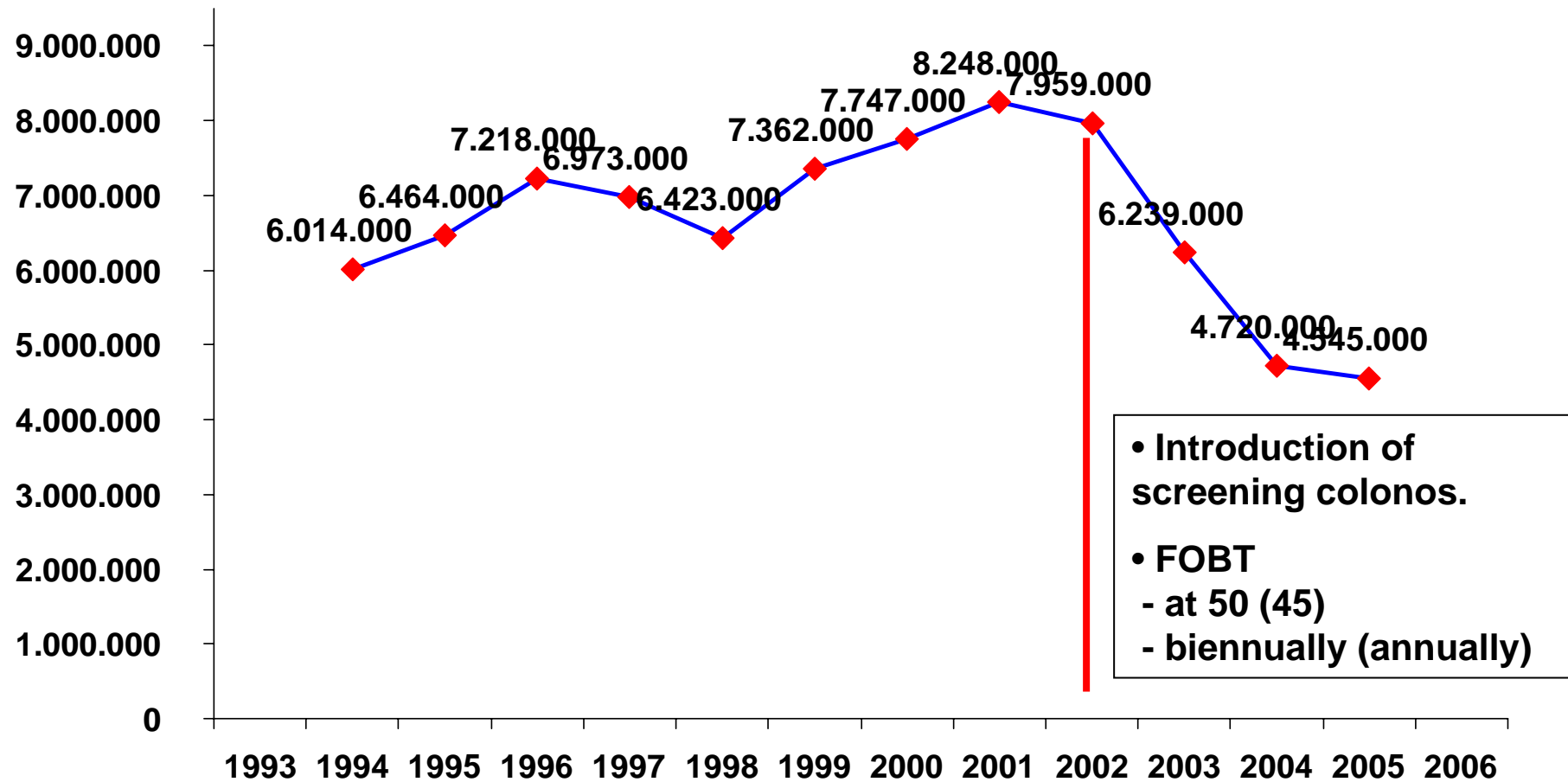
at 55 colonoscopy (if neg. repeated after 10 y.)

alternatively:

biennial FOBT

-> Free of charge

CRC-screening in Germany - FOBT



Colonoscopy Screening: Performed by whom?

- ▶ **Gastroenterologists**
- ▶ **Internists with proof of training in colonoscopy**
- ▶ **Surgeons with proof of training in colonoscopy**
- ▶ **Pediatrics with proof of training in colonoscopy**

Colonoscopy Screening: Quality control

- ▶ **proof of 200 colonoscopies and 50 polypectomies during last 2 years**
- ▶ **To maintain colonoscopy licence :
200 colonoscopies + 10 polypectomies/year**
- ▶ **photo documentation of completeness of colonoscopy**
- ▶ **infection control:**
 - ▶ **control of 1 colonoscope biannually**
 - ▶ **smear culture of endoscope**
 - ▶ **Cx of endoscope canal perfusate**
 - ▶ **Cx of optics rinsing water**

Colonoscopy Screening: Documentation

- ▶ **documentation forms**

- ▶ **completeness of exam**

- ▶ **results (cancer/polyp incl. histology)**

- ▶ **complications**

=> central evaluation of documentation forms

CRC screening: Reimbursement

	points	€
▶ complete colonoscopy	4100	188
▶ polypectomy	625	29
▶ pathology	285	13
▶ FOBT	50	2.3
▶ education about screening	215	10

Colonoscopy screening: results

- ▶ **> 2.1 million screening colonoscopies performed**
- ▶ **2100 sites perform screening colonoscopies**
(> 99% private practices)
- ▶ **females 55.6%**
- ▶ **median age m. 65.1 y., f. 64.5 y.**
- ▶ **86.4% colonoscopies w. sedation**

Screening colonoscopy – findings

	2003	2004	2005
screening councils	4,1 Mio	2,6 Mio	2,8 Mio
Screening colonoscopies			
performed	500.000	636.000	544.000
evaluated	303.000	537.000	507.000
cancer	0,6%	0,6%	0,8%
polyps	30%	30%	32%
adenomas	18%	19%	20%
advanced adenomas	5,8%	6,1%	6,6%

=> cumulative attendance 55 – 74 J. 2003-5: Männer 8,8%, Frauen 10,2%

Screening colonoscopy – Age dependent detection rate of advanced adenomas*

	males	females	total
55-59	3278 (6.7)	2572 (3.5)	5850 (4.8)
60-64	5148 (8.5)	3527 (4.7)	8675 (6.4)
65-69	5611 (9.1)	3854 (5.4)	9465 (7.1)
70-74 (including Tis)	3218 (9.9)	2216 (6.3)	5434 (8.0)

* includes adenomas >1 cm, villous histology, high grade dysplasia

Screening colonoscopy – Tumor Stages

Dukes Stage	controll- group (%)**	screened participants* (%)	5-year- survival (%)
A	18	45	94
B	26	23	84
C	23	21	57
D	26	11	2

*n = 2556

** Mezger et al. DMW 1997;122:703-8

Central Research Institute 2006

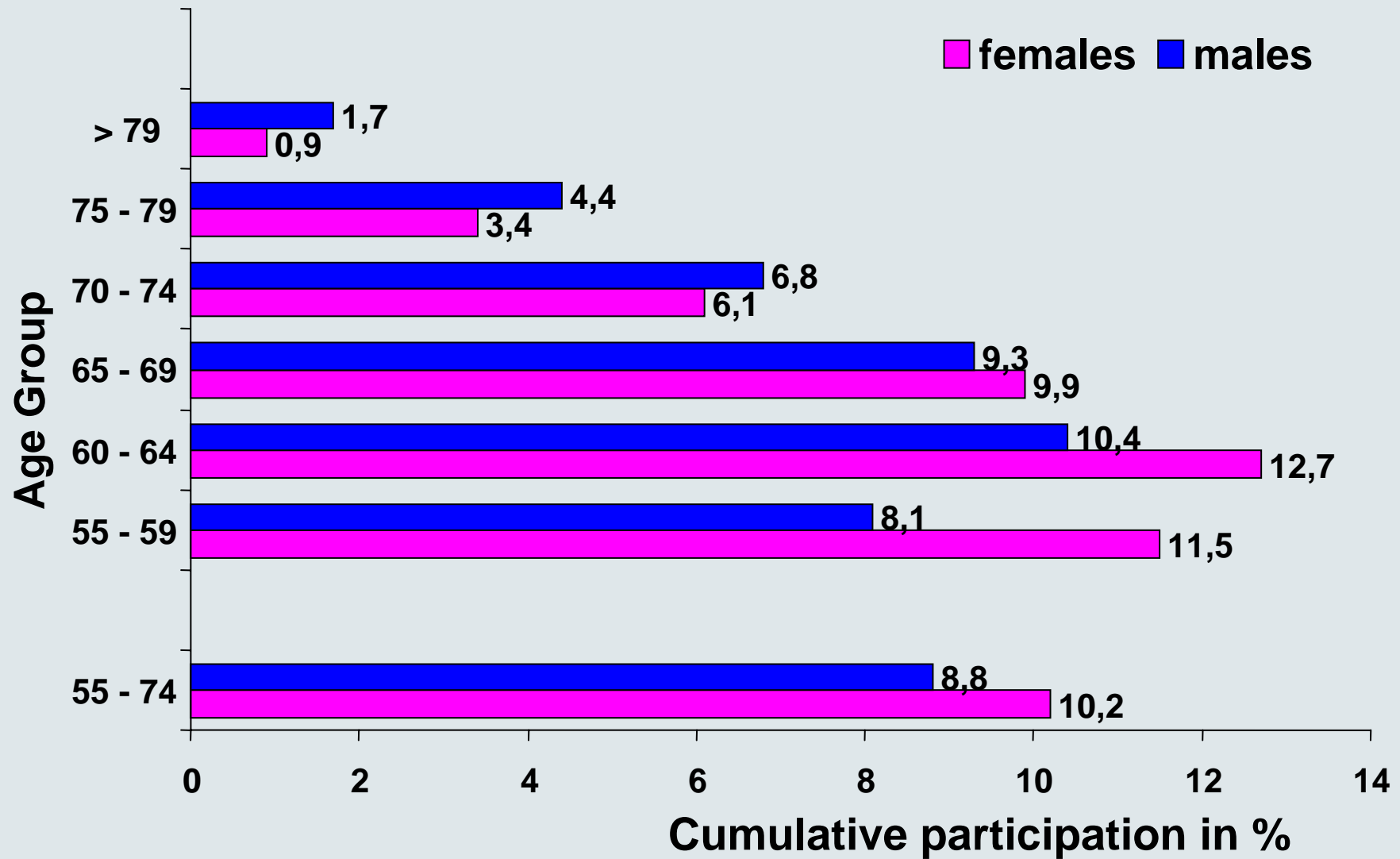
Screening colonoscopy – Complications

	n	Bleeding	Perforation	others
Lieberman	3,121	0.19%	0%	0.13%
Imperiale	2,686	0.11%	0.04%	
Atkin	2,377	0.38%	0.17%	
Germany				
total	303,052	0.24%	0.03%	0.15%
diagnostic	207,585	0.19%	0.02%	0.16%
therapeutic	78,897	1.08%	0.07%	0.12%

Screening colonoscopy – Age dependent complication rate

	age group	pat. with complications
	55-59	242 (0.20%)
	60-64	313 (0.23%)
	65-69	404 (0.30%)
	70-74	227 (0.33%)

Cumulative participation (2003 bis 2005)



colonoscopy – capacity

- ▶ **41.8 million people unscreened in US**
- ▶ **2002 14.2 million colonoscopies**
- ▶ **+ 8.2 million colonoscopies possible**
- ▶ **25% of colonoscopies > 55 y**
-> surveillance after polypectomy
- ▶ **24% of GI and 54% of surgeons recommend surveillance after polypectomy of hyperplastic polyps**

Seeff et al. Gastroenterology 2004;127:1670-7, Mysliwiec et al. Ann Intern Med 2004;141:264-71, Lieberman et al. Gastrointest Endosc 2005;62:875-83

Postpolypectomy guidelines – Germany

- ▶ **follow-up colonoscopy 3 years after complete removal of adenoma independent of no., histology, size**
- ▶ **follow-up colonoscopy 5 years after neg. postpolypectomy colonoscopy**

-> update currently in progress

CRC-screening Germany - challenges

- ▶ **low compliance w. colonoscopy screening**
- ▶ **30-day morbidity data?**
- ▶ **identification and care of risk groups?**
- ▶ **increasing proportion of postpolypectomy surveillance colonoscopies**
- ▶ **FOBT rates decreasing**
- ▶ **FOBT after 55 only biennially**

Screening colonoscopy – efficacy study (KolosSal)



aim: effect of screening colonoscopy on
CRC-related mortality

method: comparison of CRC-incidence after
screening colonoscopy vs. general population
(cancer registry Saarland)

Participating physicians: GI-practices performing
screening colonoscopy in Saarland, Germany
(population: 1 mio.)

Size of study: 10.000 screenes

Principal investigator: Prof. H. Brenner, DKFZ

Sponsor: Central Research Institute, Berlin