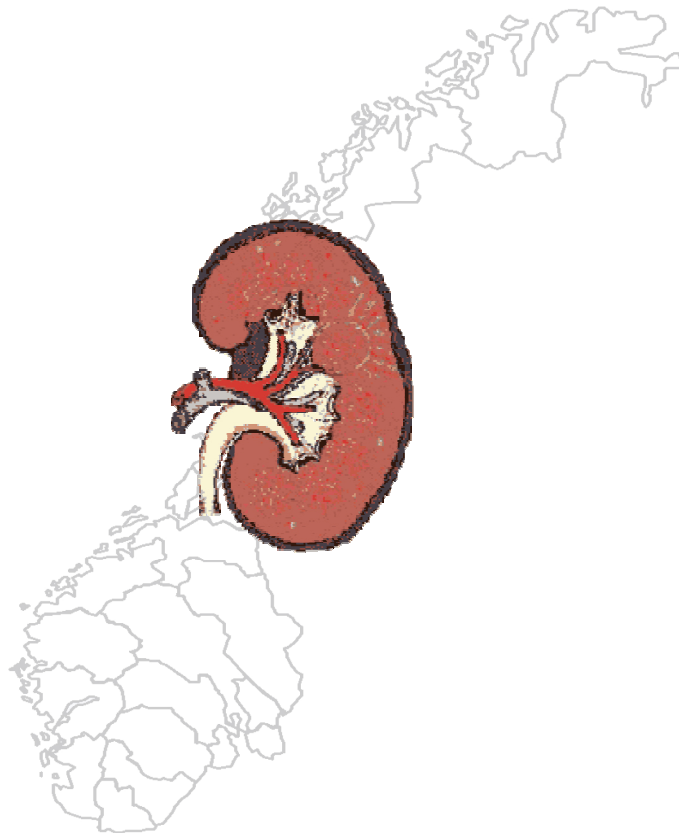


**The Norwegian Kidney Register/National Center in Nephropathology
Department of Medicine/Department of Pathology
Haukeland University Hospital**

ANNUAL REPORT

2009



Head of the board: Bjarne M. Iversen, professor MD PhD
Head of pathology: Leif Bostad, associate professor, MD

Annual report 2009

We regret the late arrival of this report which is due to many reasons. On the bright side is the decline in lacking histological reports to only 21 in 2009. However 73 clinical reports are missing. Most hospitals lack only a few reports but there are some hospitals that have not filled in the reports for several patients. This may be due to the practice that some departments, such as rheumatology departments, are ordering kidney biopsy by radiologists and neither of them are submitting the clinical reports. The local nephrologists should probably be more involved in this process.

It is still possible to include clinical and morphological data from patients having biopsies in earlier years making the registry more complete. At the end of 2009, we have nearly 11000 biopsies in the registry and as reported previously, our registry is the oldest active database in Europe.

The frequency of renal biopsies is still increasing, and the number of renal biopsies per inhabitant is fairly equal in region Sør-Øst, region Vest and region Midt Norge, while it is lower in Region Nord. However, some reports from Region Nord are lacking which may explain the slight difference. It is nice to see that the renal biopsy policy is getting more uniform in Norway. Ullevål University Hospital has the highest number of renal biopsies in 2009, followed by Rikshospitalet.

The different diagnosis, clinical indications for biopsies are given in the report and the total number of biopsies as well as the lacking reports are also notified.

Like the last previous years an increasing number of older patients had a renal biopsy. The biopsy procedure is safe in these patients, but the risk is slightly higher than in young patients. The overall frequency of complications is low (Page 38-42). There was no cases that needed surgical intervention following the biopsy, but 5 patients had blood transfusion. .

The registry has got funding to purchase a digital slide scanner (2.1 mill from Mohn foundation) In collaboration with IKT from Helse Vest and Helse Bergen we have applied for 750 000 kr to operate the system. We intend to buy the slide scanner in the first part of 2011 and to start scanning histological sections from renal biopsies in the second part of 2011. This has been a difficult and time consuming process that seems to come to an end during the spring. We plan to integrate the digitalising system with the diagnostic biopsy data base at the Dpt. of Pathology and hopefully every hospital can get access to their own data when the "firewall" between regions will be less restrict than it is today. The digitalised renal biopsy will facilitate teleconferences, consultations, clinical work, education, and research and improve collaboration between hospitals

Research

Knut Aasarød is still together with several others nephrologists and in collaboration with Leif Bostad working on a study on renal SLE in a large cohort in Norway. Rune Bjørneklett is working on IgA nephropathy and will probably finish this work in 2011. Dr.med. Tale Nordbye Wien, “Nasjonalt Kunnskapsenter for helsetjenesten” will work on a program related to amyloidosis in the registry. Bjørn Egil Vikse has a large numbers of works on renal disease and preeclampsia. Studies using proteomics techniques are going on well on experimental tissue, and can now proceed to human tissue. He has also got a fairly big amount of money to continue this work. Einar Svarstad, Camilla Tøndel and Leif Bostad are working on Fabrys disease. Camilla Tøndel is nearly finishing an in depth study of all complications after renal biopsies since we started the registry in 1988. Kristin Sæle has done a great study on the value of taking renal biopsies in elderly patients. She needs now to write up the findings.

Administration

Bjarne M.Iversen retired as head of the board from 1/1-11 and Bjørn Egil Vikse is taking his position. Leif Bostad is a board member and head of the pathology service of the registry. Anders Hartmann, Knut Aasarød are in the board of the registry as members from the Norwegian Society of Nephrology, while the Society of Pathology is represented by Harald Aarset.

The present report has been performed mainly by Else Reimers, the secretary of the Norwegian Kidney Registry. We are grateful for her skilled collaboration

Leif Bostad
Associate professor, MD

Bjarne M.Iversen
Professor MD, PhD

I Clinical

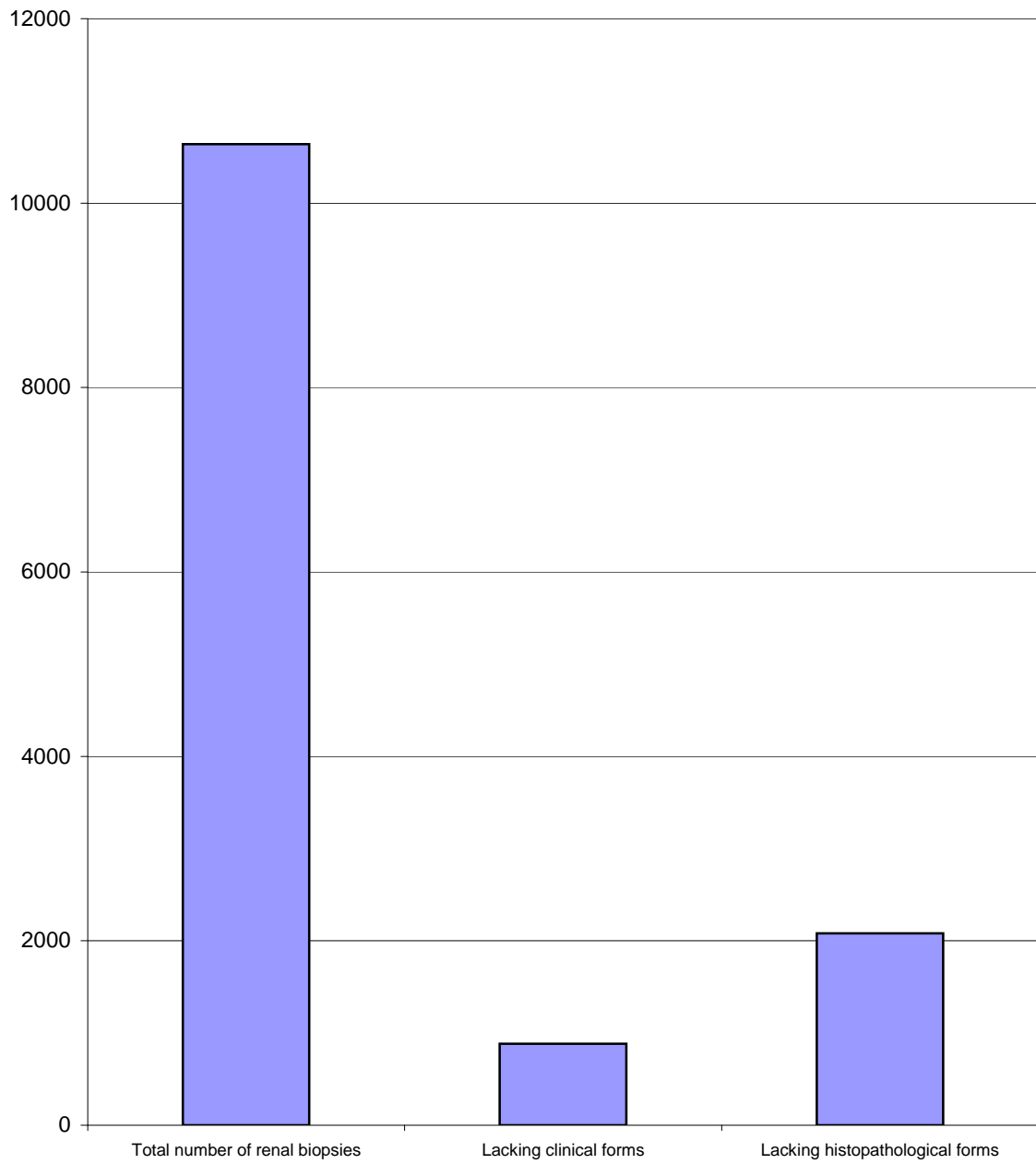
		Number	Number in %
	Total number of renal biopsies	633	
	Biopsies lacking clinical form	73	11,5
Diagnosis	Hematuria	217	38,8
	Hematuria with proteinuria <3g/24h	10	1,8
	Nefrotic syndrom with proteinuria >3g/24h	21	3,8
	Chronical renal failure	180	32,1
	Hypertension BP >140/90	98	17,5
	SLE	23	4,1
	Creatinine > 200	170	30,4
	Creatinine < 200	383	68,4
Complications	Non complications	465	96,1
	Macroscopical hematuria	14	2,9
	Blood transfusion	5	1,0
	Surgical intervention	0	0,0

II Morphology

	Total number of renal biopsies	633	
	Biopsies lacking histopathological form	21	3,3
Quality of biopsies	Register pathologist: sufficient material	280	80,5
	Register pathologist: insufficient material	68	19,5
	Local pathologist: sufficient material	536	95,2
	Local pathologist: insufficient material	27	4,8
Diagnosis	Minimal change	30	4,9
	Membranoproliferative GN	9	1,5
	Focal segmental sclerosis	42	6,9
	Benign nephrosclerosis	236	38,6
	Malign nephrosclerosis	3	0,5
	Membranous GN	44	7,2
	Mesangioproliferative GN	132	21,6
	Mesangioproliferative GN with IgA	78	12,7
	Mesangioproliferativ GN without IgA	54	8,8
	Mesangioproliferative GN with SLE	0	0,0
	Endocap proliferative GN	4	0,7
	Cresentic GN	17	2,8
	Diabetic nephropathy	49	8,0
	Amyloidosis	16	2,6
	Diffus prol.Lupusnephritis(IV)	9	1,5
	Congenital nephropathy	30	4,9
	Monoclonal Ig deposition disease	18	2,9
	Cryoglobulinemia with GN	0	0,0

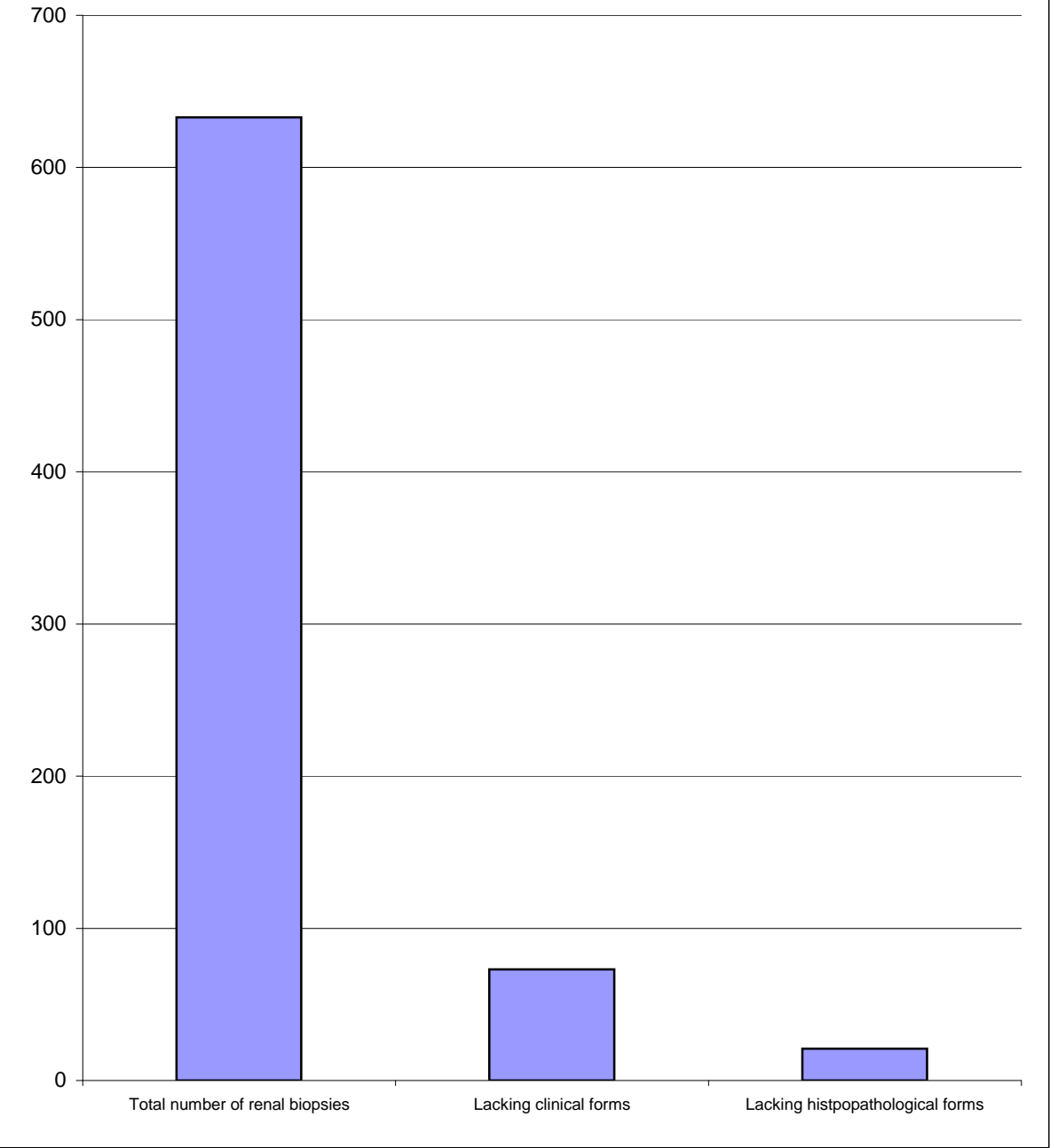
Alphabetical index	Page
<u>A</u>	
<i>Age and gender, total biopsies</i>	13
<u>C</u>	17
<i>Clinical biopsy indication at different hospitals</i>	
<i>Clinical biosy</i>	14
<i>Clinical indication for a renal biopsy (%)</i>	15
<i>Clinical indication in different regions</i>	16
<i>Clinical indications and morphology</i>	26
<i>Complications to renal biopsy and who performed it</i>	40
<i>Complications to renal biopsy performed by nephrologist</i>	41
<i>Complications to renal biopsy performed by radiologist</i>	42
<i>Complicatons to renal biopsies</i>	38
<i>Complicatons to renal biopsies (%)</i>	39
<u>M</u>	
<i>Morphology</i>	20
<i>Morphology at different hospitals</i>	25
<i>Morphology in patients with chronical renal failure</i>	30
<i>Morphology in patients with creatinine <200</i>	33
<i>Morphology in patients with creatinine>200</i>	32
<i>Morphology in patients with Hematuria</i>	28
<i>Morphology in patients with Hematuria and proteinuria <3G/24H</i>	29
<i>Morphology in patients with hypertension BP>140/90</i>	31
<i>Morphology in patients with SLE</i>	34
<i>Morphology in patients with the Nefrotic Syndrome and proteinuria >3g/24H</i>	27
<i>Morphology, % of all</i>	21
<u>N</u>	
<i>Number of clinical forms lacking at different hospitals</i>	5
<i>Number of histopathological forms lacking at different hospitals</i>	6
<i>Number of renal biopsies among different hospitals</i>	11
<i>Number of renal biosies/ 100000 inhabitants</i>	10
<i>Number of renal biopsies in 2005</i>	2
<u>R</u>	
<i>Renal biopsies in different regions</i>	7
<i>Renal biopsies in different regions, related to gender</i>	8
<i>Renal biopsy in different regions, by age</i>	9
<i>Renal morphology, local pathologist</i>	18
<i>Renal morphology, register pathologist</i>	19
<i>Renal pathology in different regions</i>	22- 23 - 24
<u>S</u>	
<i>SLE based on clinical form information and on Diffus.prol. Lupusnephritis (IV)</i>	35
<u>T</u>	
<i>Total number of clinical forms lacking at different hospitals</i>	3
<i>Total number of histopathological forms lacking at different hospitals</i>	4
<i>Total number of renal biopsies in males and females</i>	12
<i>Total number of biopsies in The Norwegian Kidney Register</i>	1
<u>W</u>	
<i>Who performed the renal biopsy in Norway</i>	36
<i>Who performed the renal biopsy at different hospitals</i>	37

Total number of biopsies in The Norwegian Kidney Register



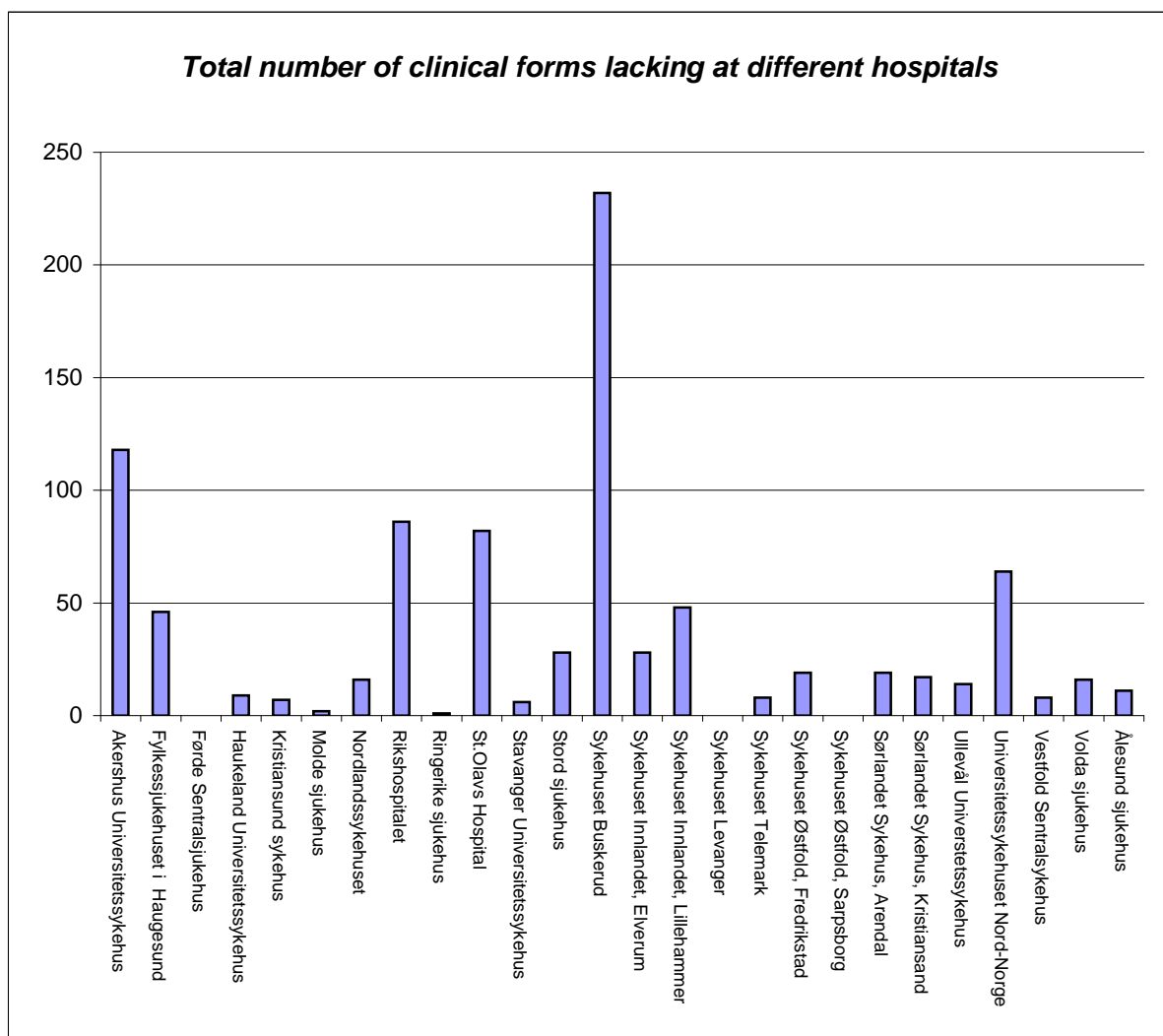
Total number of renal biopsies	10638
Lacking clinical forms	885
Lacking histopathological forms	2080

Number of renal biopsies 2009



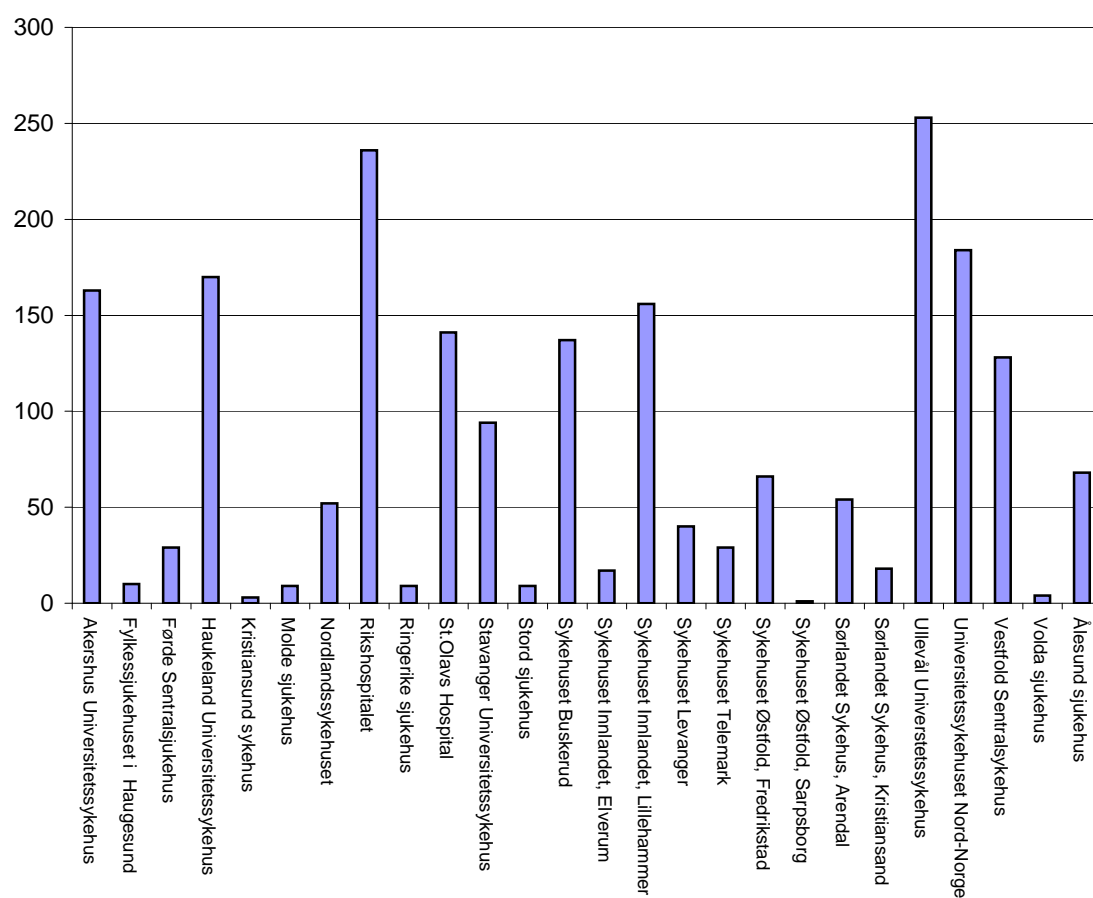
Total number of renal biopsies	633
Lacking clinical forms	73
Lacking histopathological forms	21

Total number of clinical forms lacking at different hospitals



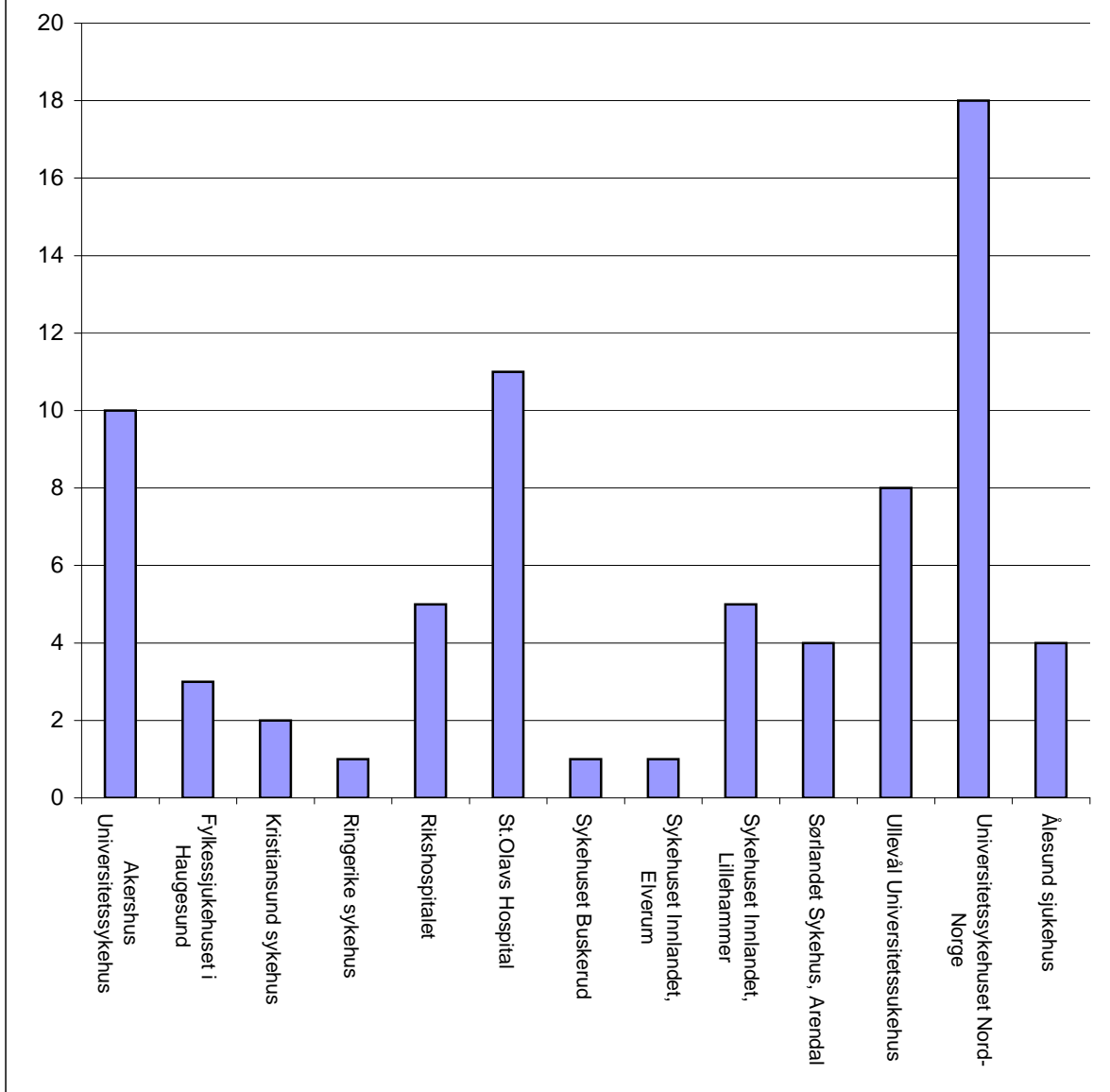
Hospital	Number
Akershus Universitetssykehus	118
Fylkessjukehuset i Haugesund	46
Førde Sentralsjukehus	0
Haukeland Universitetssykehus	9
Kristiansund sykehus	7
Molde sjukehus	2
Nordlandssykehuset	16
Rikshospitalet	86
Ringerike sjukehus	1
St.Olavs Hospital	82
Stavanger Universitetssykehus	6
Stord sjukehus	28
Sykehuset Buskerud	232
Sykehuset Innlandet, Elverum	28
Sykehuset Innlandet, Lillehammer	48
Sykehuset Levanger	0
Sykehuset Telemark	8
Sykehuset Østfold, Fredrikstad	19
Sykehuset Østfold, Sarpsborg	0
Sørlandet Sykehus, Arendal	19
Sørlandet Sykehus, Kristiansand	17
Ullevål Universtetssykehus	14
Universitetssykehuset Nord-Norge	64
Vestfold Sentralsykehus	8
Volda sjukehus	16
Ålesund sjukehus	11
Total	885

**Total number of histopathological forms
lacking at different hospitals**



Hospital	Number
Akershus Universitetssykehus	163
Fylkessjukehuset i Haugesund	10
Førde Sentralsjukehus	29
Haukeland Universitetssykehus	170
Kristiansund sykehus	3
Molde sjukehus	9
Nordlandssykehuset	52
Rikshospitalet	236
Ringerike sjukehus	9
St.Olavs Hospital	141
Stavanger Universitetssykehus	94
Stord sjukehus	9
Sykehuset Buskerud	137
Sykehuset Innlandet, Elverum	17
Sykehuset Innlandet, Lillehammer	156
Sykehuset Levanger	40
Sykehuset Telemark	29
Sykehuset Østfold, Fredrikstad	66
Sykehuset Østfold, Sarpsborg	1
Sørlandet Sykehus, Arendal	54
Sørlandet Sykehus, Kristiansand	18
Ullevål Universitetssykehus	253
Universitetssykehuset Nord-Norge	184
Vestfold Sentralsykehus	128
Volda sjukehus	4
Ålesund sjukehus	68
Total	2080

Number of clinical forms lacking at different hospitals, 2009



Total

73

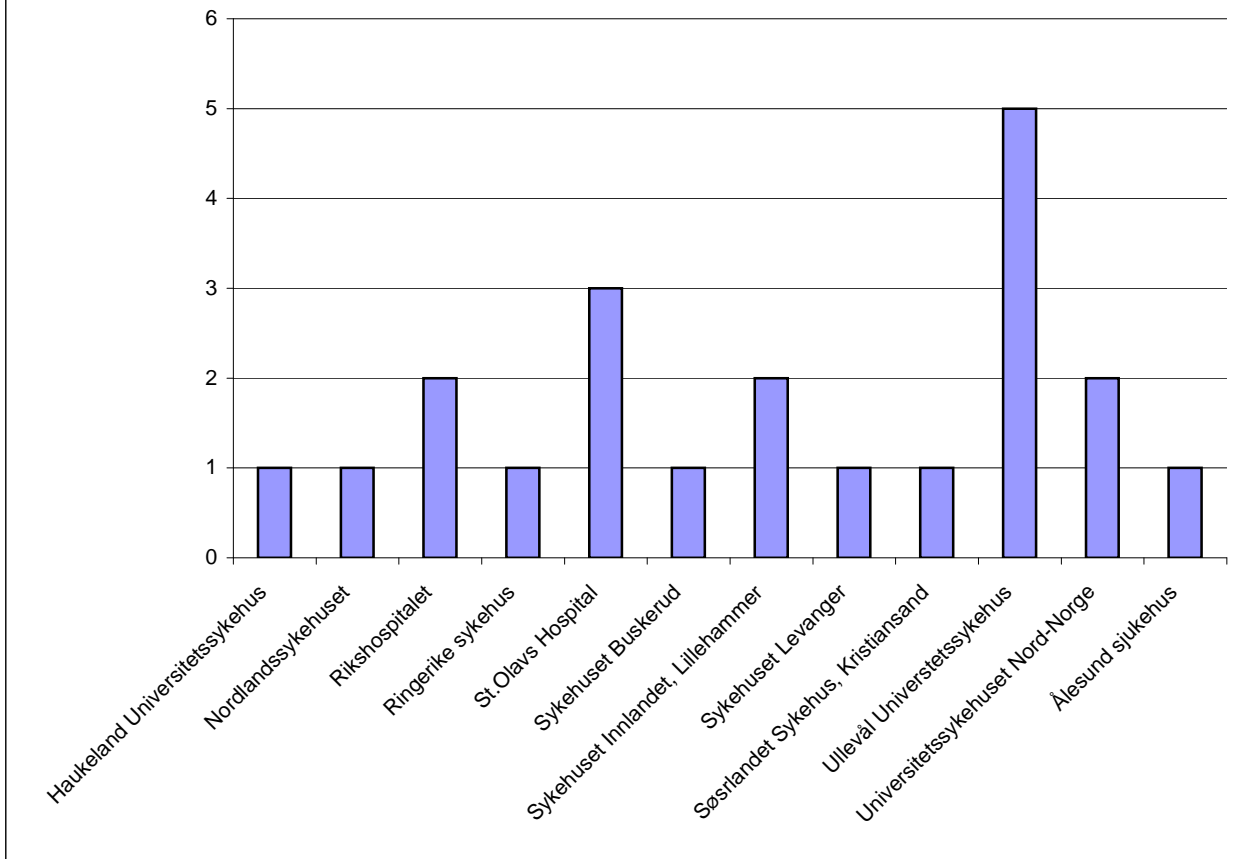
Hospital

Number

Akershus Universitetssykehus
 Fylkessjukehuset i Haugesund
 Kristiansund sykehus
 Ringerike sykehus
 Rikshospitalet
 St. Olavs Hospital
 Sykehuset Buskerud
 Sykehuset Innlandet, Elverum
 Sykehuset Innlandet, Lillehammer
 Sørlandet Sykehus, Arendal
 Ullevål Universitetssykehus
 Universitetssykehuset Nord-Norge
 Ålesund sjukehus

10
 3
 2
 1
 5
 11
 1
 1
 5
 4
 8
 18
 4

Number of histopathological forms lacking at different hospitals, 2009

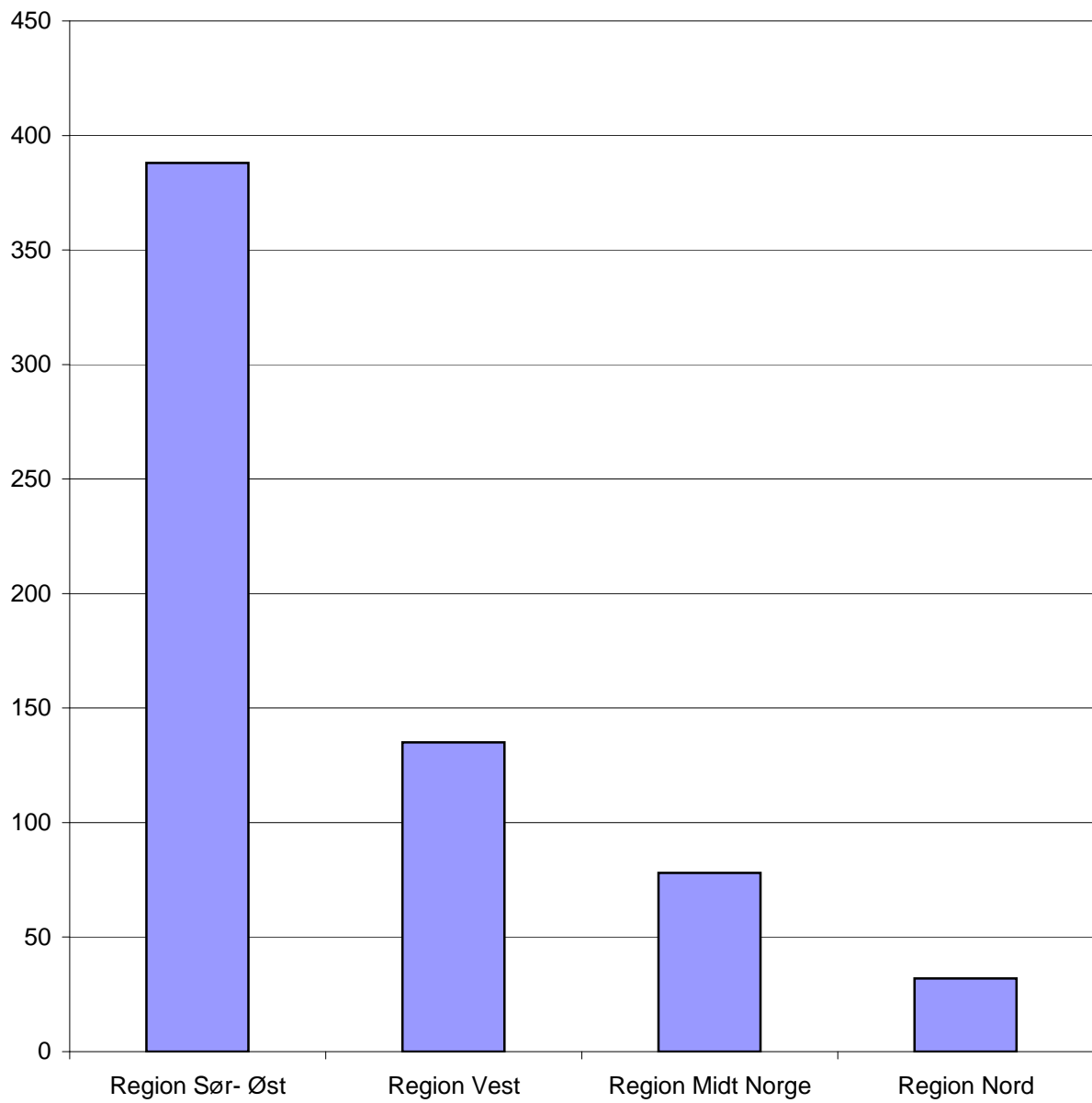


Total

21

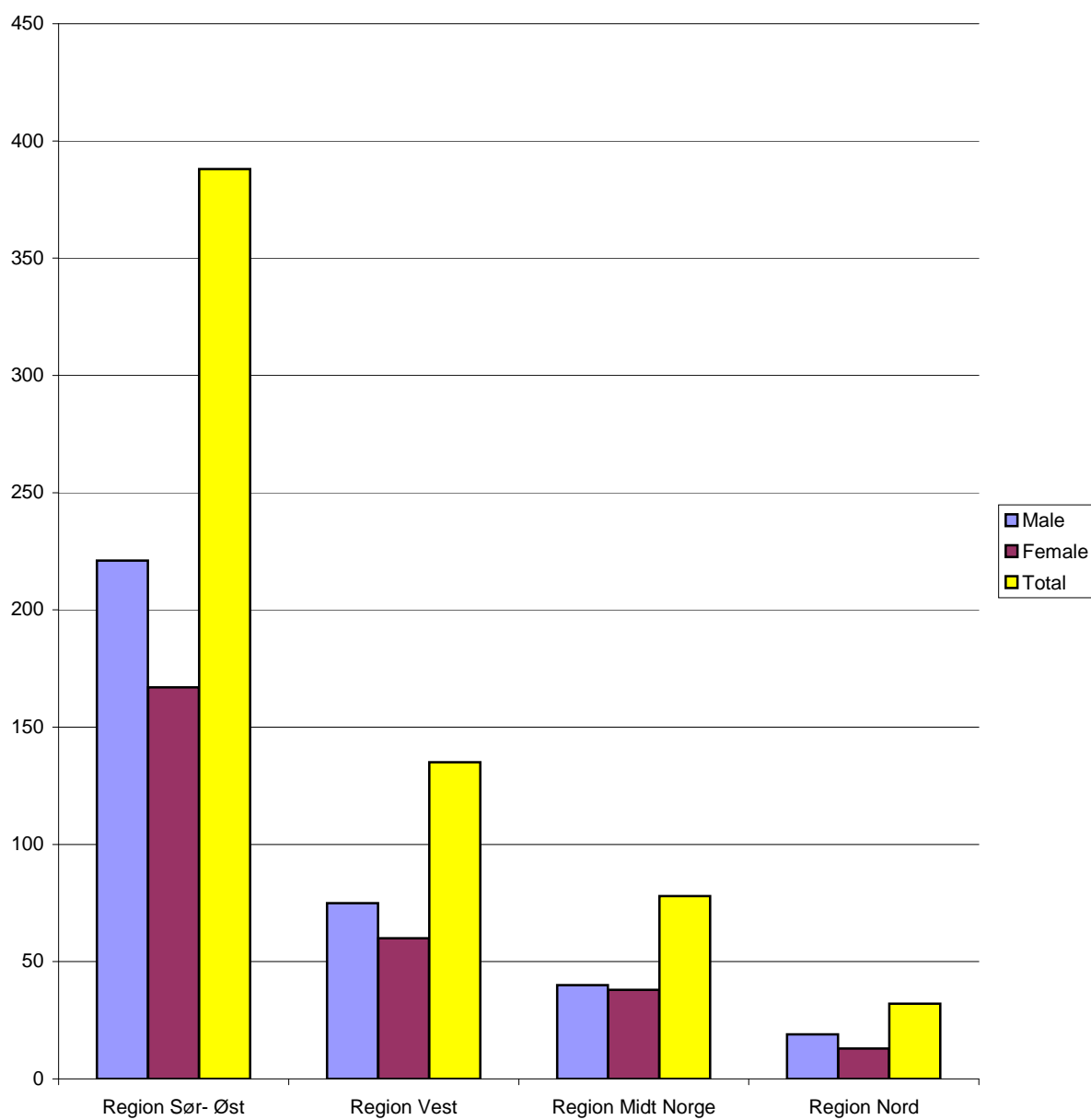
Hospital	Number
Haukeland Universitetssykehus	1
Nordlandssykehuset	1
Rikshospitalet	2
Ringerike sykehus	1
St.Olavs Hospital	3
Sykehuset Buskerud	1
Sykehuset Innlandet, Lillehammer	2
Sykehuset Levanger	1
Sørlandet Sykehus, Kristiansand	1
Ullevål Universtetssykehus	5
Universitetssykehuset Nord-Norge	2
Ålesund sjukehus	1

Renal biopsies in different regions, 2009



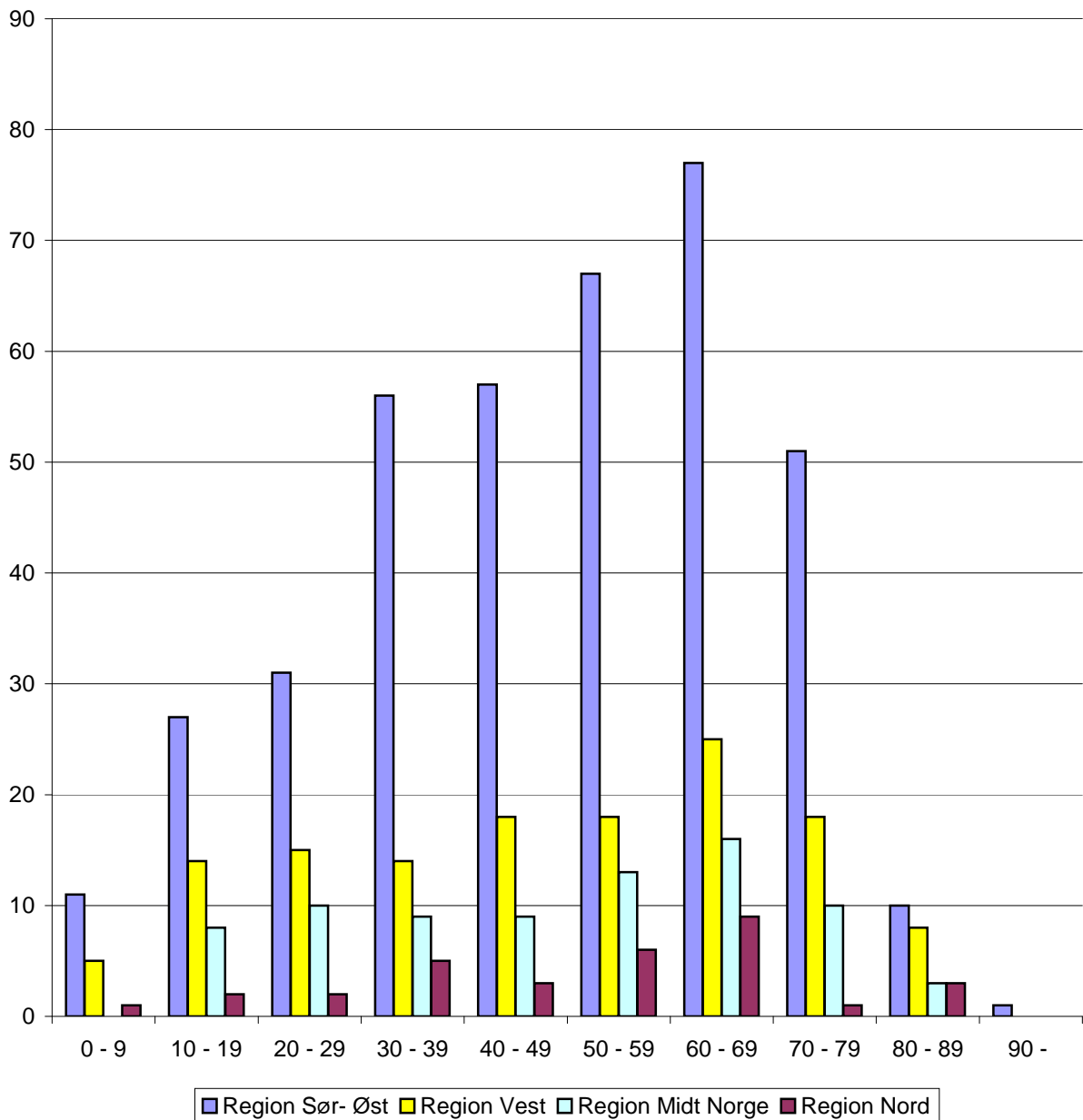
Region	Number
Region Sør- Øst	388
Region Vest	135
Region Midt Norge	78
Region Nord	32

Renal biopsies in different regions, male and female, 2009



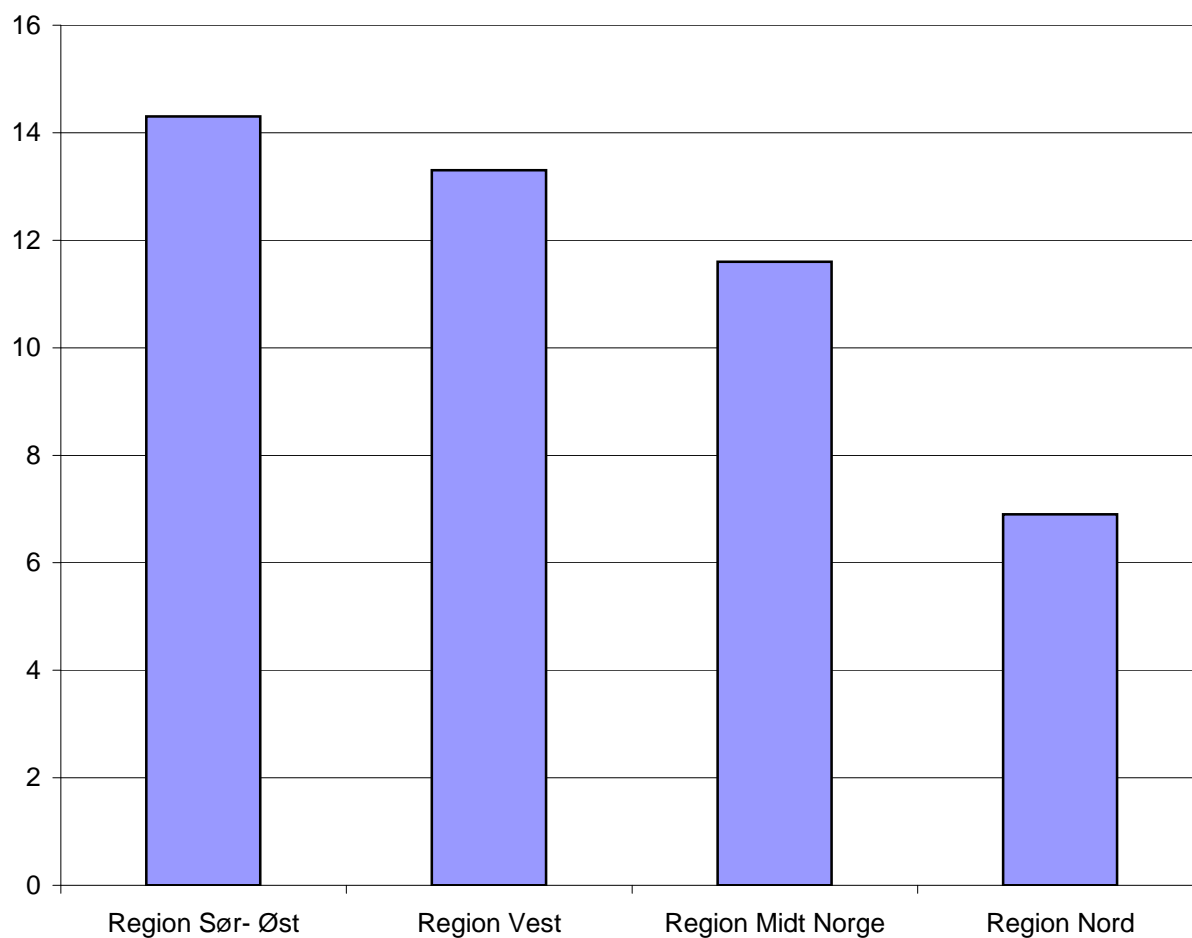
Region	Male	Female	Total
Region Sør- Øst	221	167	388
Region Vest	75	60	135
Region Midt Norge	40	38	78
Region Nord	19	13	32
Total	355	278	633

Patient age and regions, 2009



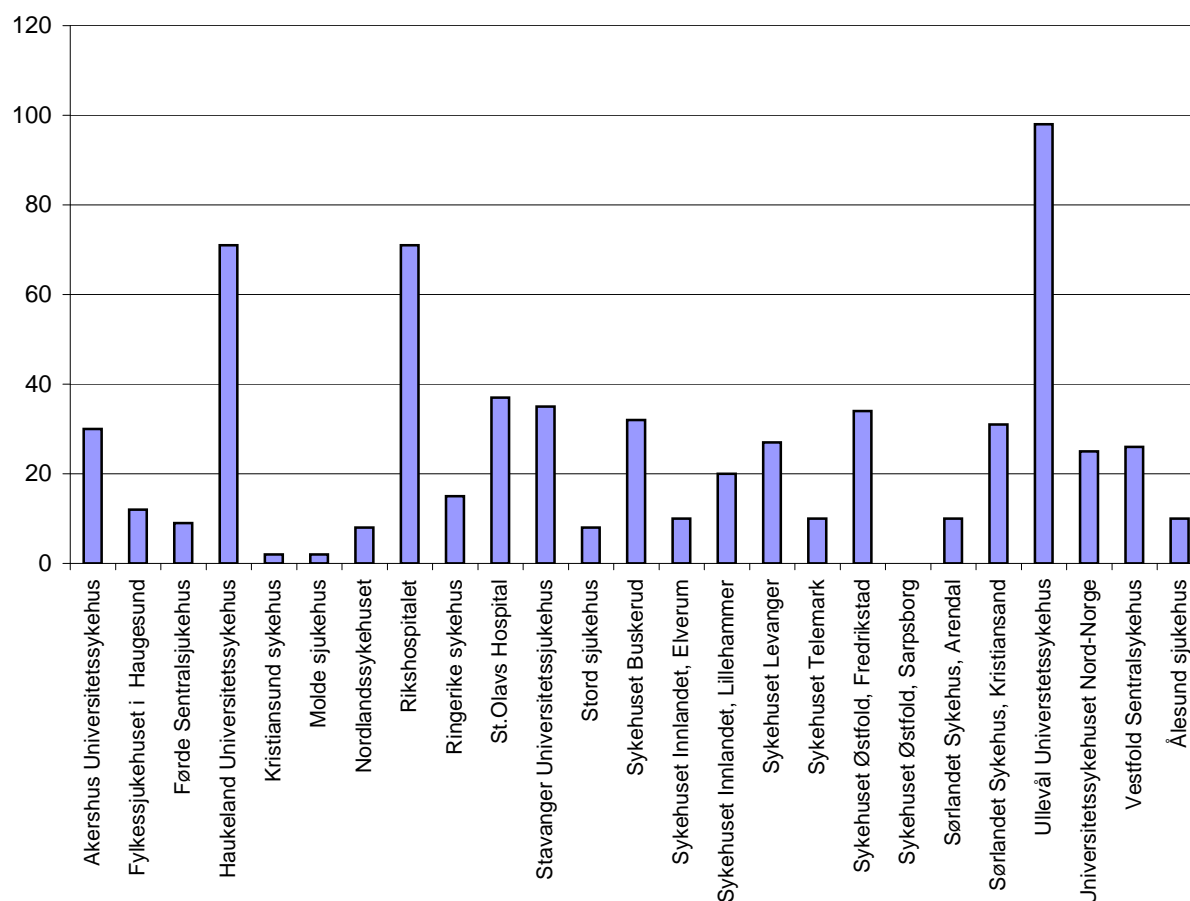
Age	Region Sør- Øst	Region Vest	Region Midt Norge	Region Nord
0 - 9	11	5	0	1
10 - 19	27	14	8	2
20 - 29	31	15	10	2
30 - 39	56	14	9	5
40 - 49	57	18	9	3
50 - 59	67	18	13	6
60 - 69	77	25	16	9
70 - 79	51	18	10	1
80 - 89	10	8	3	3
90 -	1	0	0	0

Number of renal biopsies /100000 inhabitants, 2009



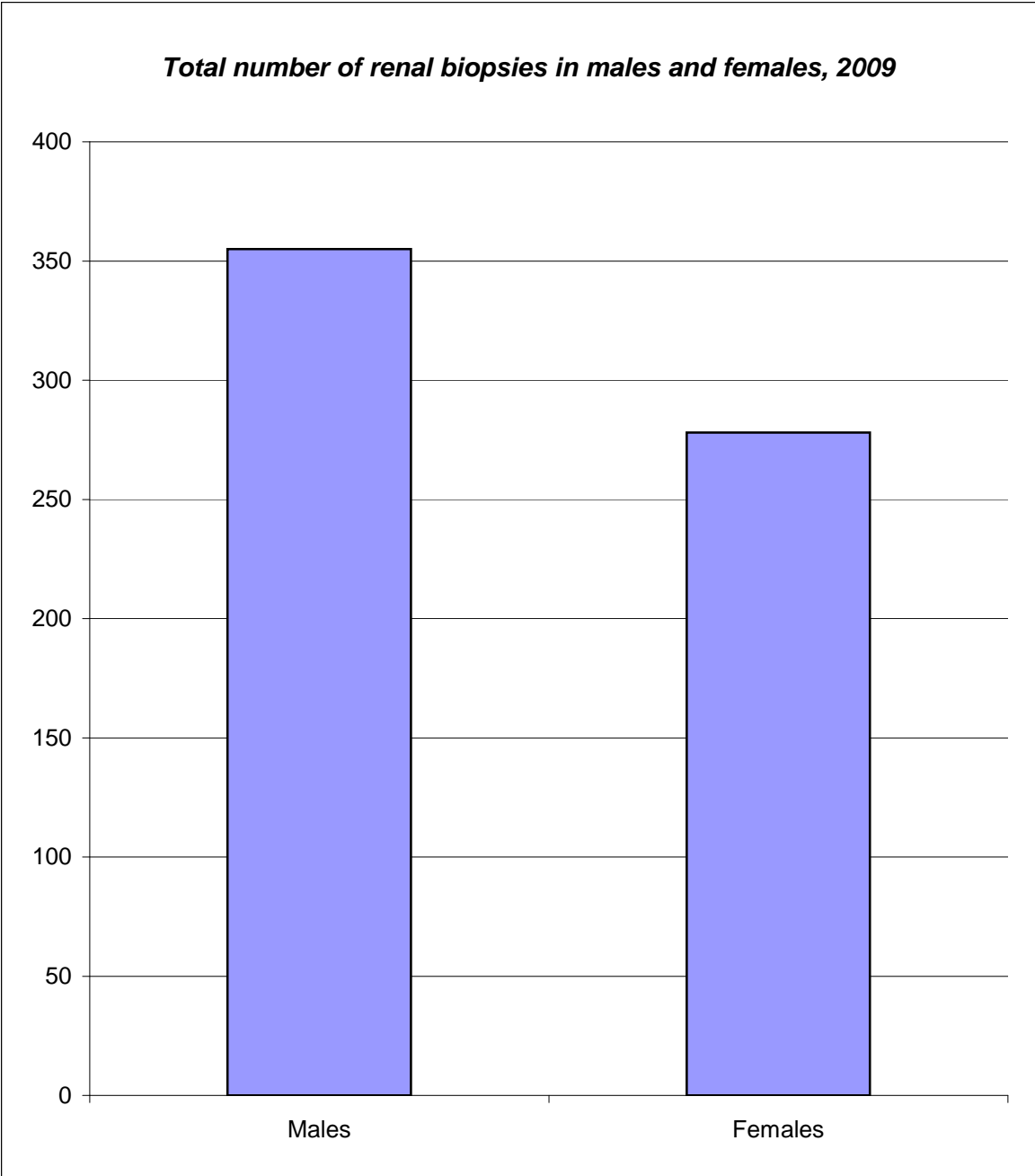
Region	Number
Region Sør- Øst	14,3
Region Vest	13,3
Region Midt Norge	11,6
Region Nord	6,9

Number of renal biopsies at different hospitals, 2009



Hospital	Number
Akershus Universitetssykehus	30
Fylkessjukehuset i Haugesund	12
Førde Sentralsjukehus	9
Haukeland Universitetssykehus	71
Kristiansund sykehus	2
Molde sjukehus	2
Nordlandssykehuset	8
Rikshospitalet	71
Ringerike sykehus	15
St.Olavs Hospital	37
Stavanger Universitetssjukehus	35
Stord sjukehus	8
Sykehuset Buskerud	32
Sykehuset Innlandet, Elverum	10
Sykehuset Innlandet, Lillehammer	20
Sykehuset Levanger	27
Sykehuset Telemark	10
Sykehuset Østfold, Fredrikstad	34
Sykehuset Østfold, Sarpsborg	0
Sørlandet Sykehus, Arendal	10
Sørlandet Sykehus, Kristiansand	31
Ullevål Universtetssykehus	98
Universitetssykehuset Nord-Norge	25
Vestfold Sentralsykehus	26
Ålesund sjukehus	10
Total	633

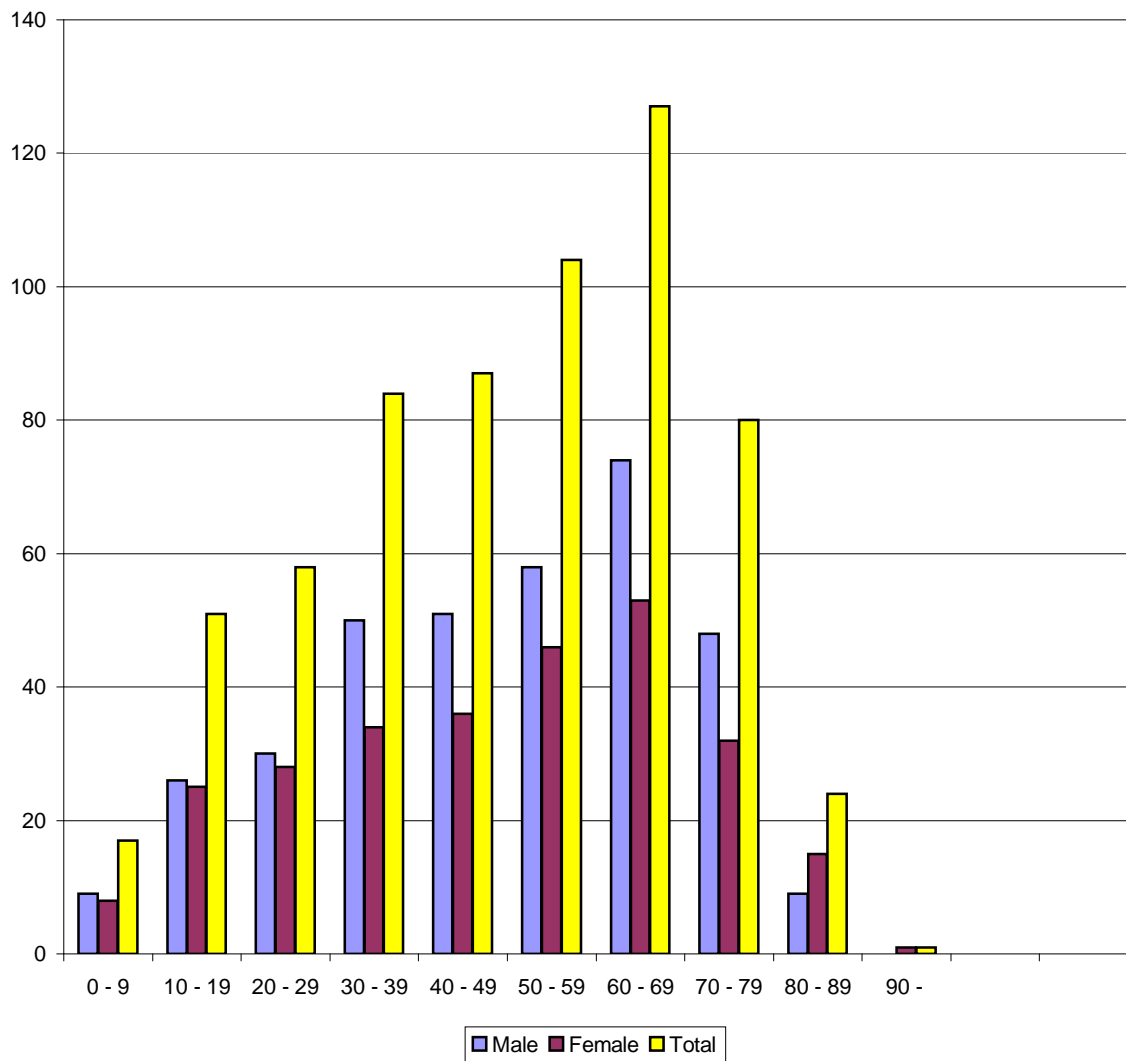
Total number of renal biopsies in males and females, 2009



n=633

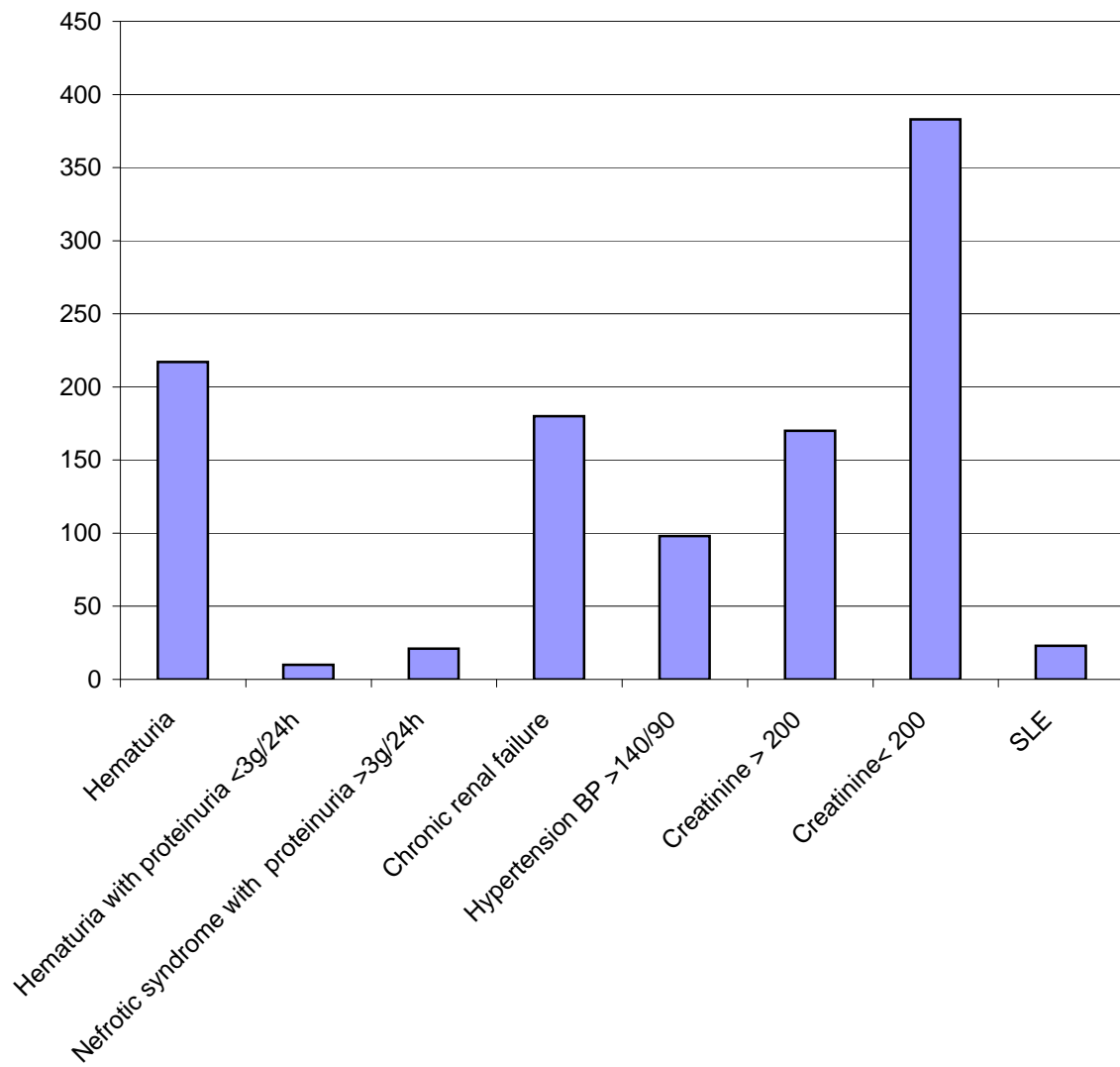
Males	355	(56.1%)
Females	278	(43.9%)

Age and gender, 2009



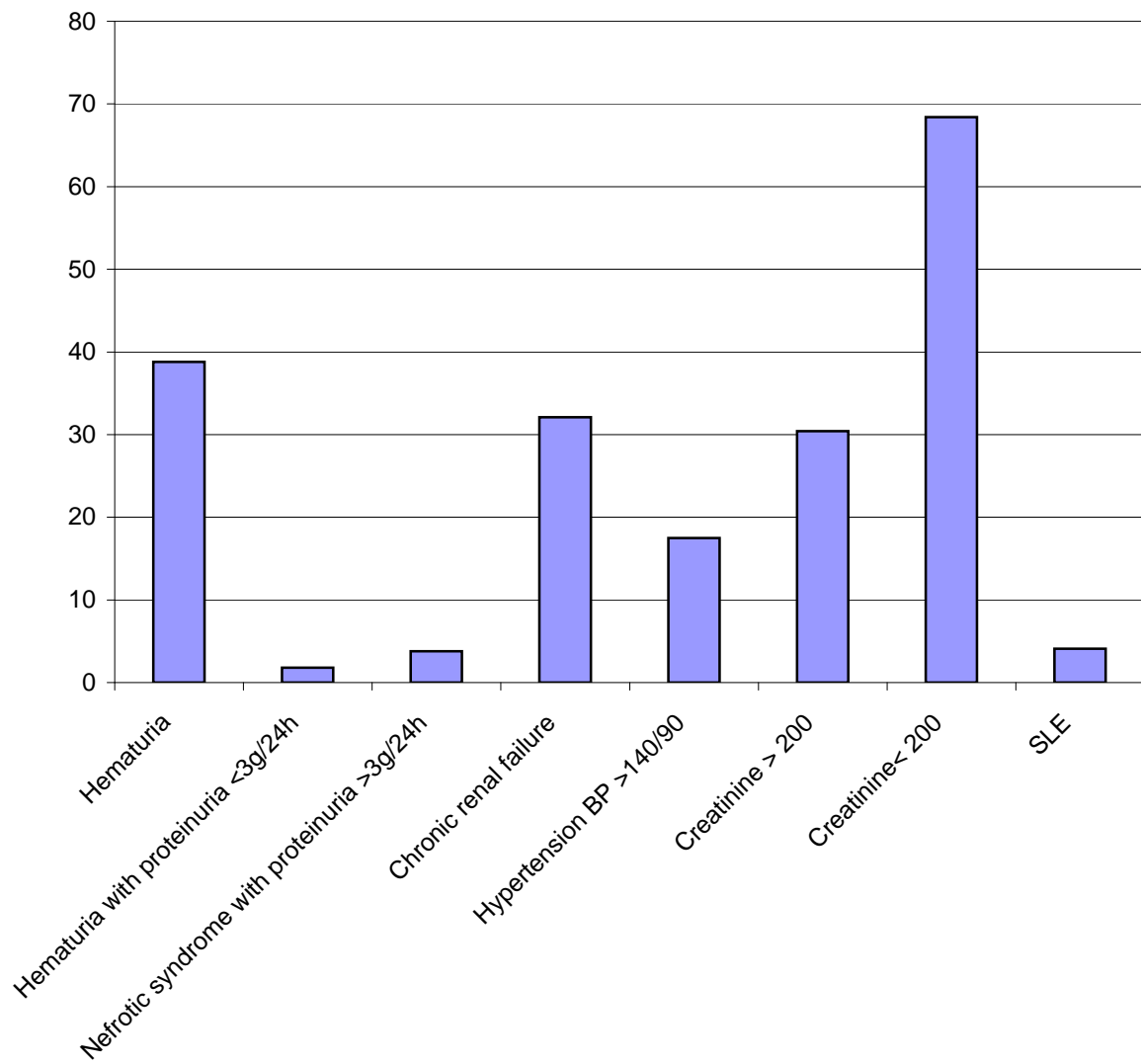
Age	Male	Female	Total
0 - 9	9	8	17
10 - 19	26	25	51
20 - 29	30	28	58
30 - 39	50	34	84
40 - 49	51	36	87
50 - 59	58	46	104
60 - 69	74	53	127
70 - 79	48	32	80
80 - 89	9	15	24
90 -	0	1	1

Clinical indications for a renal biopsy, 2009



Clinical indication	Number
Hematuria	217
Hematuria with proteinuria <3g/24h	10
Nefrotic syndrome with proteinuria >3g/24h	21
Chronic renal failure	180
Hypertension BP >140/90	98
Creatinine > 200	170
Creatinine < 200	383
SLE	23

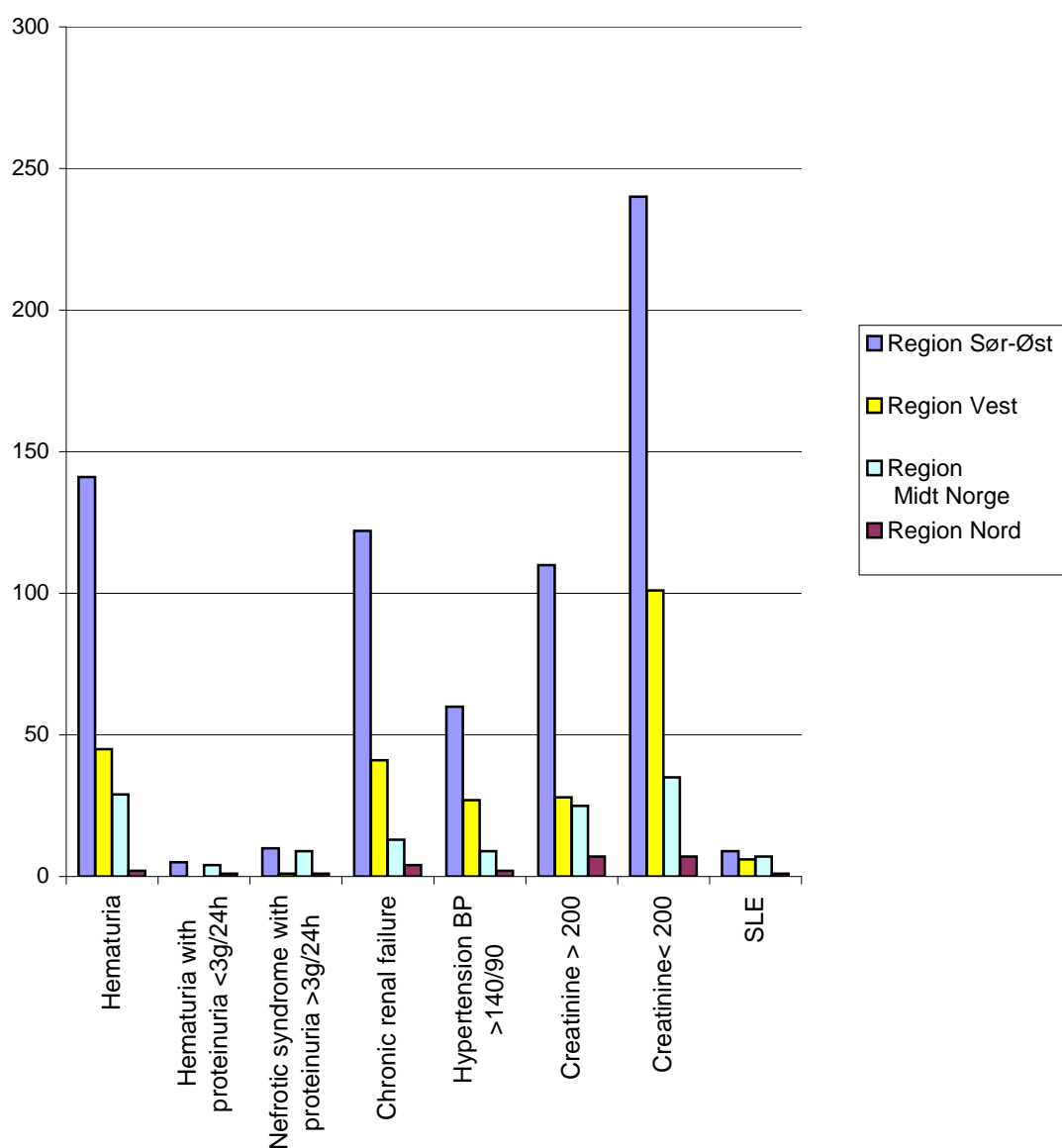
Clinical indication for a renal biopsy (%), 2009



n=560

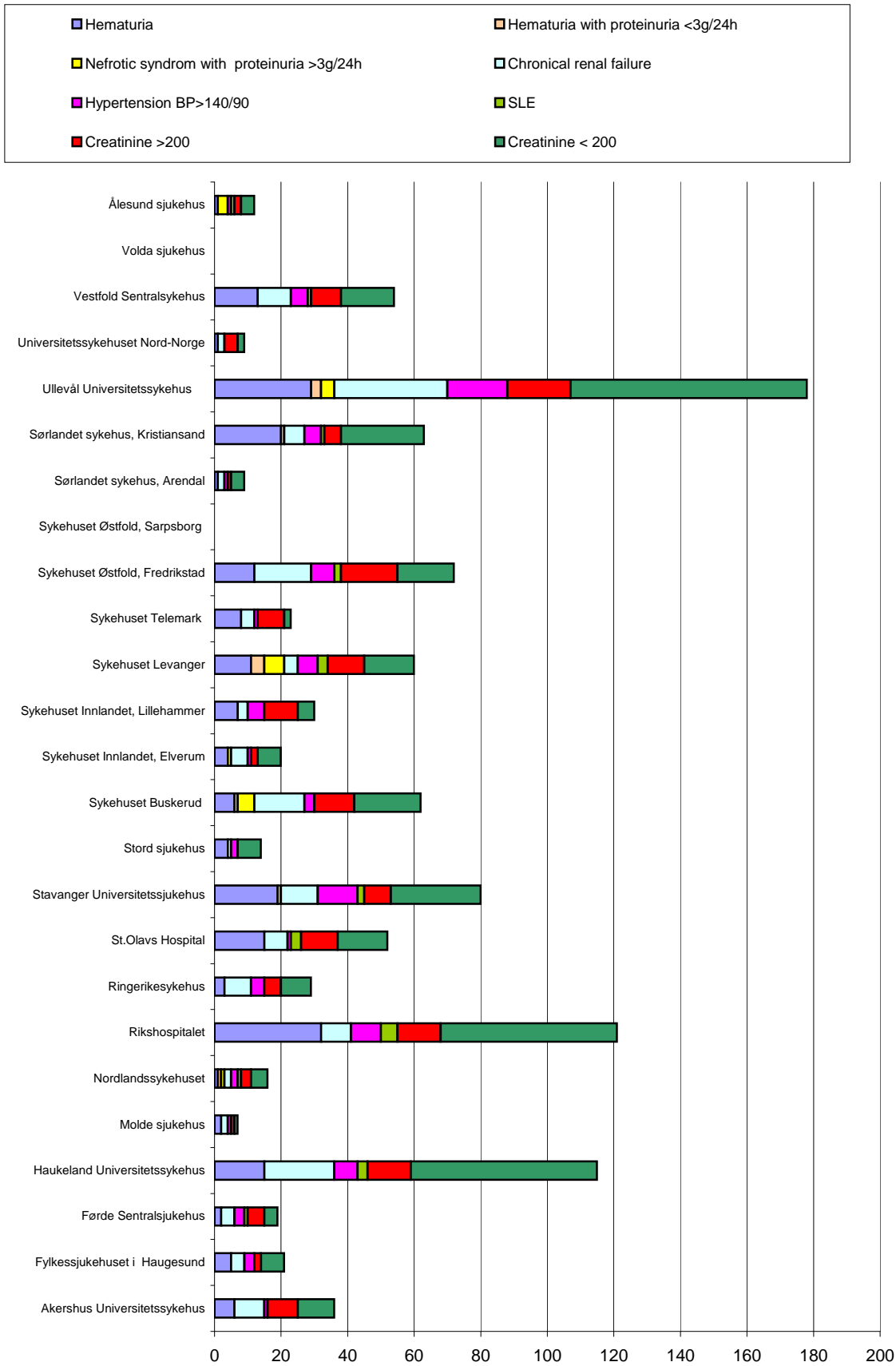
Clinical indication	%
Hematuria	38,8
Hematuria with proteinuria <3g/24h	1,8
Nefrotic syndrome with proteinuria >3g/24h	3,8
Chronic renal failure	32,1
Hypertension BP >140/90	17,5
Creatinine > 200	30,4
Creatinine < 200	68,4
SLE	4,1

Clinical indication in different regions, 2009



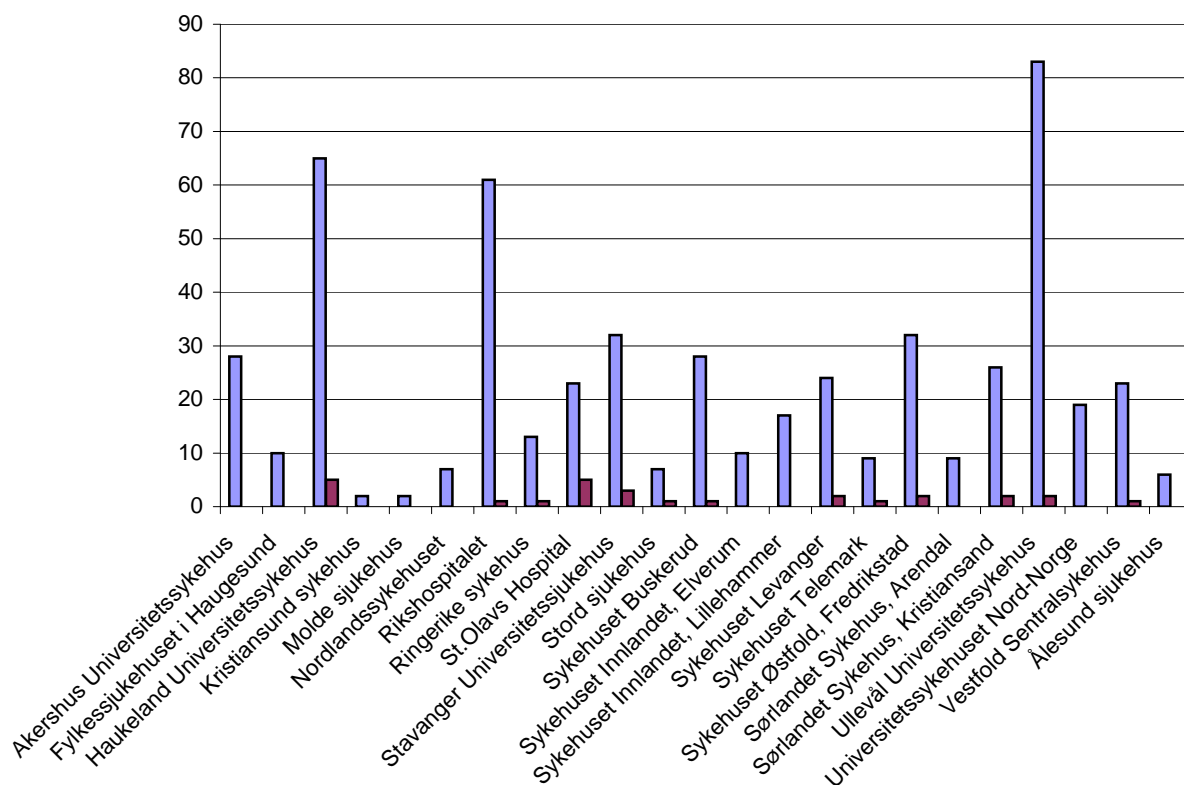
Clinical indication	Region Sør-Øst	Region Vest	Region Midt Norge	Region Nord
Hematuria	141	45	29	2
Hematuria with proteinuria <3g/24h	5	0	4	1
Nefrotic syndrome with proteinuria >3g/24h	10	1	9	1
Chronic renal failure	122	41	13	4
Hypertension BP >140/90	60	27	9	2
Creatinine > 200	110	28	25	7
Creatinine < 200	240	101	35	7
SLE	9	6	7	1

Clinical indications at different hospitals, 2009



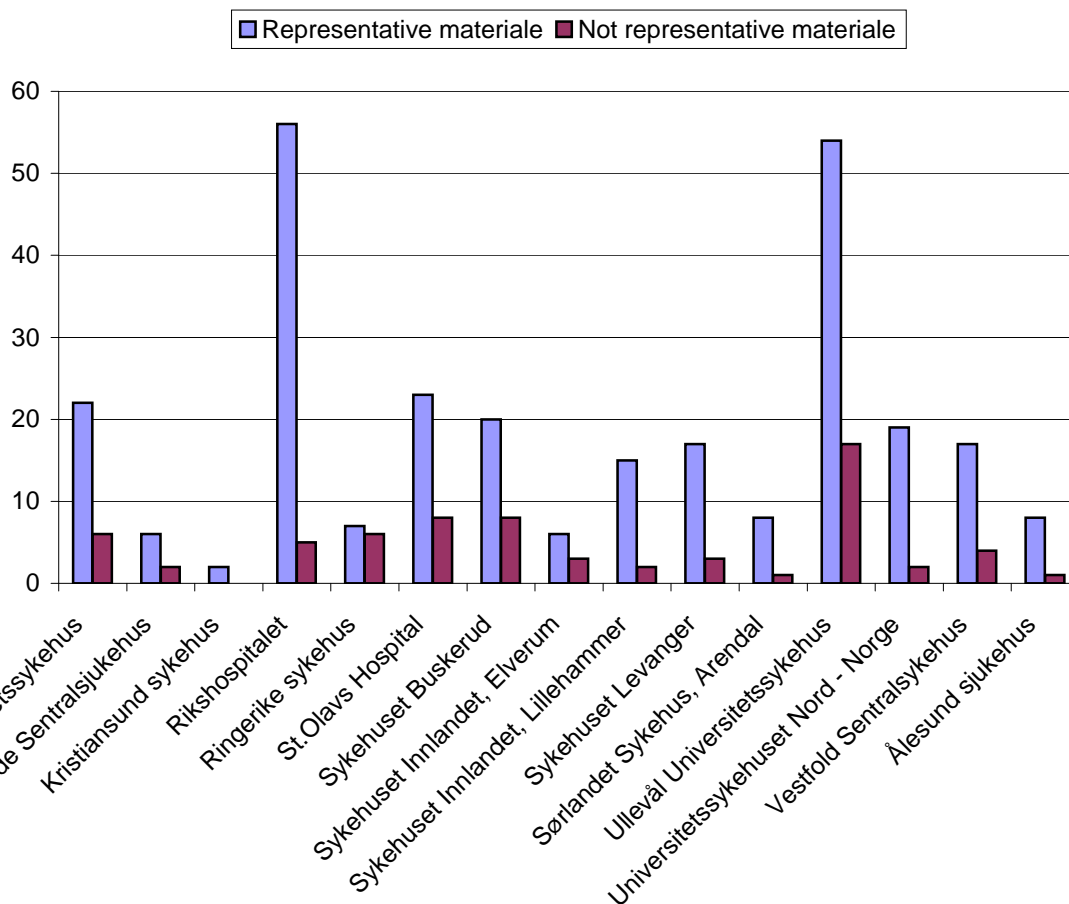
Renal morphology, local pathologist, 2009

■ Representative material ■ Not representative material



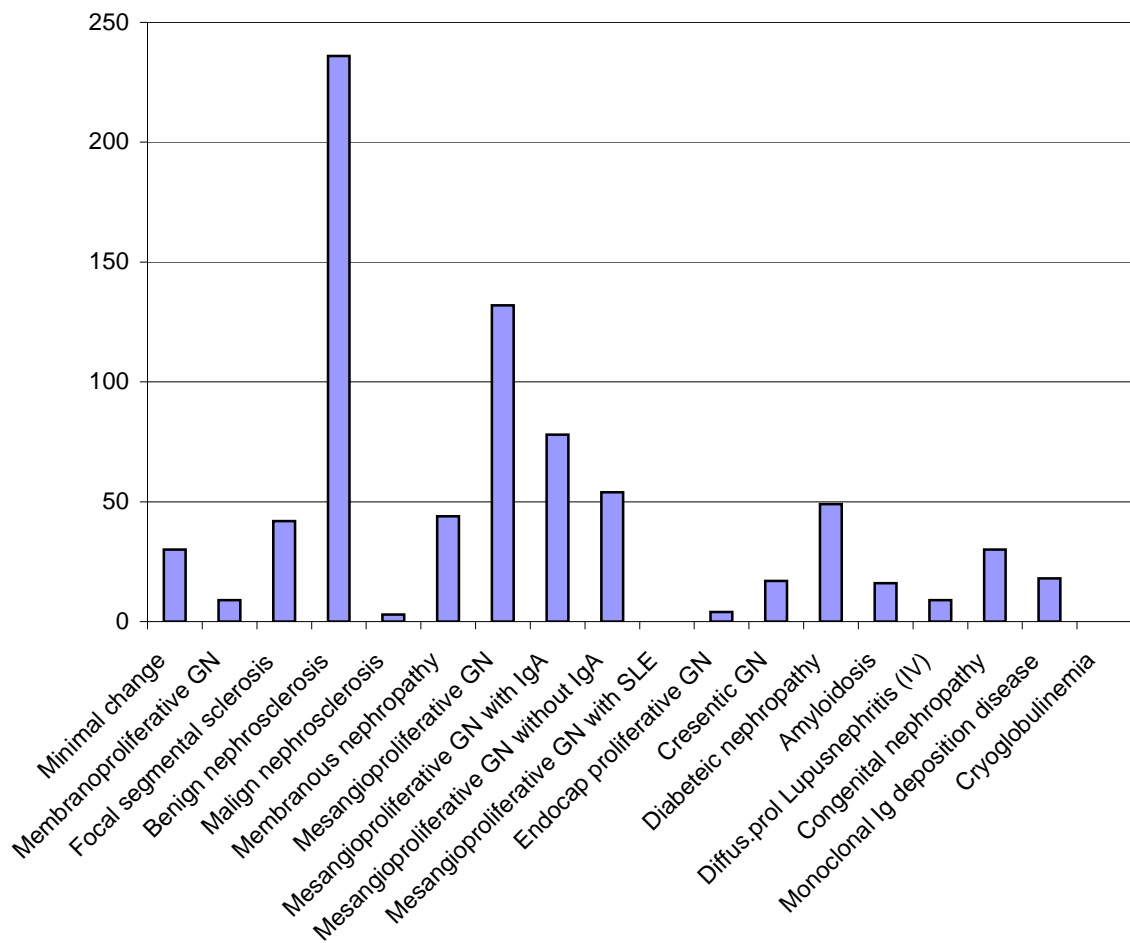
Hospital	Representative material	Not representative material
Akershus Universitetssykehus	28	0
Fylkessjukehuset i Haugesund	10	0
Haukeland Universitetssykehus	65	5
Kristiansund sykehus	2	0
Molde sjukehus	2	0
Nordlandssykehuset	7	0
Rikshospitalet	61	1
Ringerike sykehus	13	1
St.Olavs Hospital	23	5
Stavanger Universitetssjukehus	32	3
Stord sjukehus	7	1
Sykehuset Buskerud	28	1
Sykehuset Innlandet, Elverum	10	0
Sykehuset Innlandet, Lillehammer	17	0
Sykehuset Levanger	24	2
Sykehuset Telemark	9	1
Sykehuset Østfold, Fredrikstad	32	2
Sørlandet Sykehus, Arendal	9	0
Sørlandet Sykehus, Kristiansand	26	2
Ullevål Universitetssykehus	83	2
Universitetssykehuset Nord-Norge	19	0
Vestfold Sentralsykehus	23	1
Ålesund sjukehus	6	0
Total	536	27

Renal morphology, register patologist, 2009



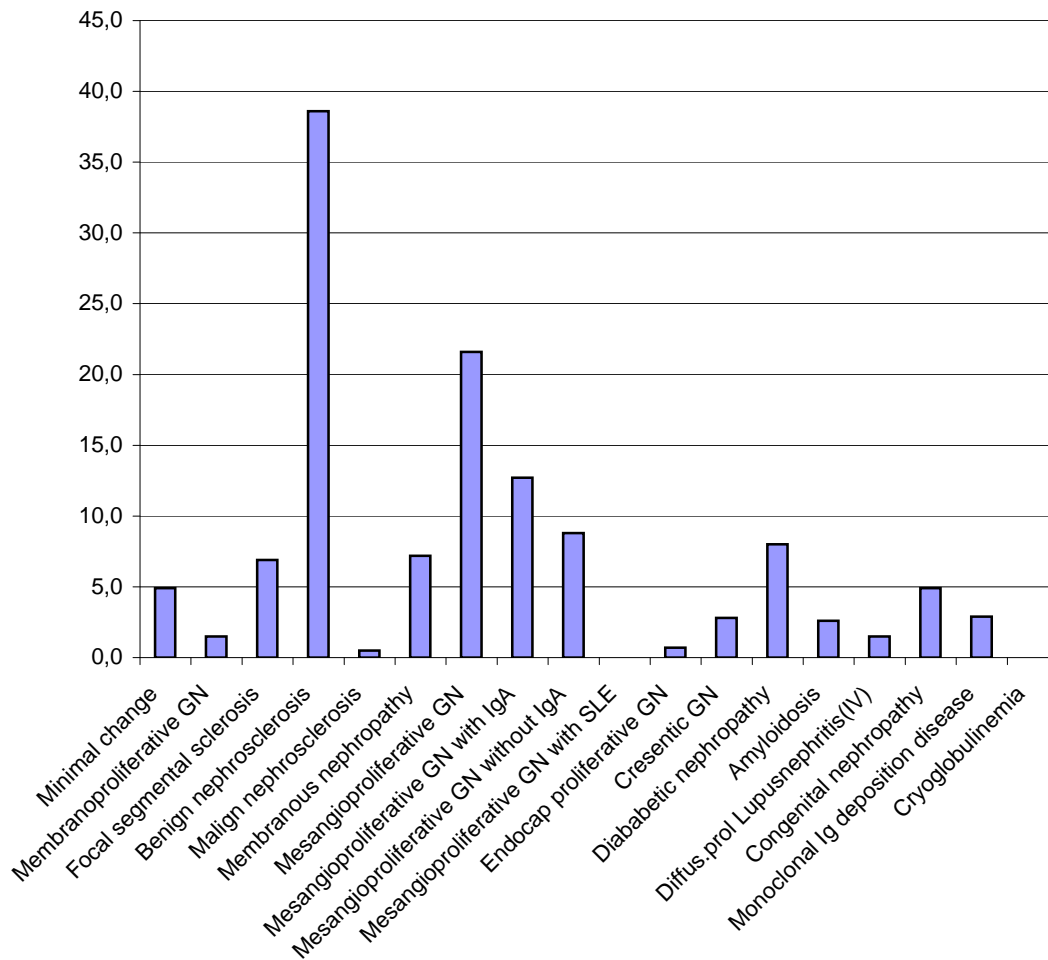
Hospital	Representative materiale	Not representative materiale
Akershus Universitetssykehus	22	6
Førde Sentralsykehus	6	2
Kristiansund sykehus	2	0
Rikshospitalet	56	5
Ringerike sykehus	7	6
St.Olavs Hospital	23	8
Sykehuset Buskerud	20	8
Sykehuset Innlandet, Elverum	6	3
Sykehuset Innlandet, Lillehammer	15	2
Sykehuset Levanger	17	3
Sørlandet Sykehus, Arendal	8	1
Ullevål Universitetssykehus	54	17
Universitetssykehuset Nord - Norge	19	2
Vestfold Sentralsykehus	17	4
Ålesund sjukehus	8	1
Total	280	68

Histopathology diagnosis, 2009



Diagnosis	Number
Minimal change	30
Membranoproliferative GN	9
Focal segmental sclerosis	42
Benign nephrosclerosis	236
Malign nephrosclerosis	3
Membranous nephropathy	44
Mesangioproliferative GN	132
Mesangioproliferative GN with IgA	78
Mesangioproliferative GN without IgA	54
Mesangioproliferative GN with SLE	0
Endocap proliferative GN	4
Crescentic GN	17
Diabetic nephropathy	49
Amyloidosis	16
Diffus.prol Lupusnephritis (IV)	9
Congenital nephropathy	30
Monoclonal Ig deposition disease	18
Cryoglobulinemia	0

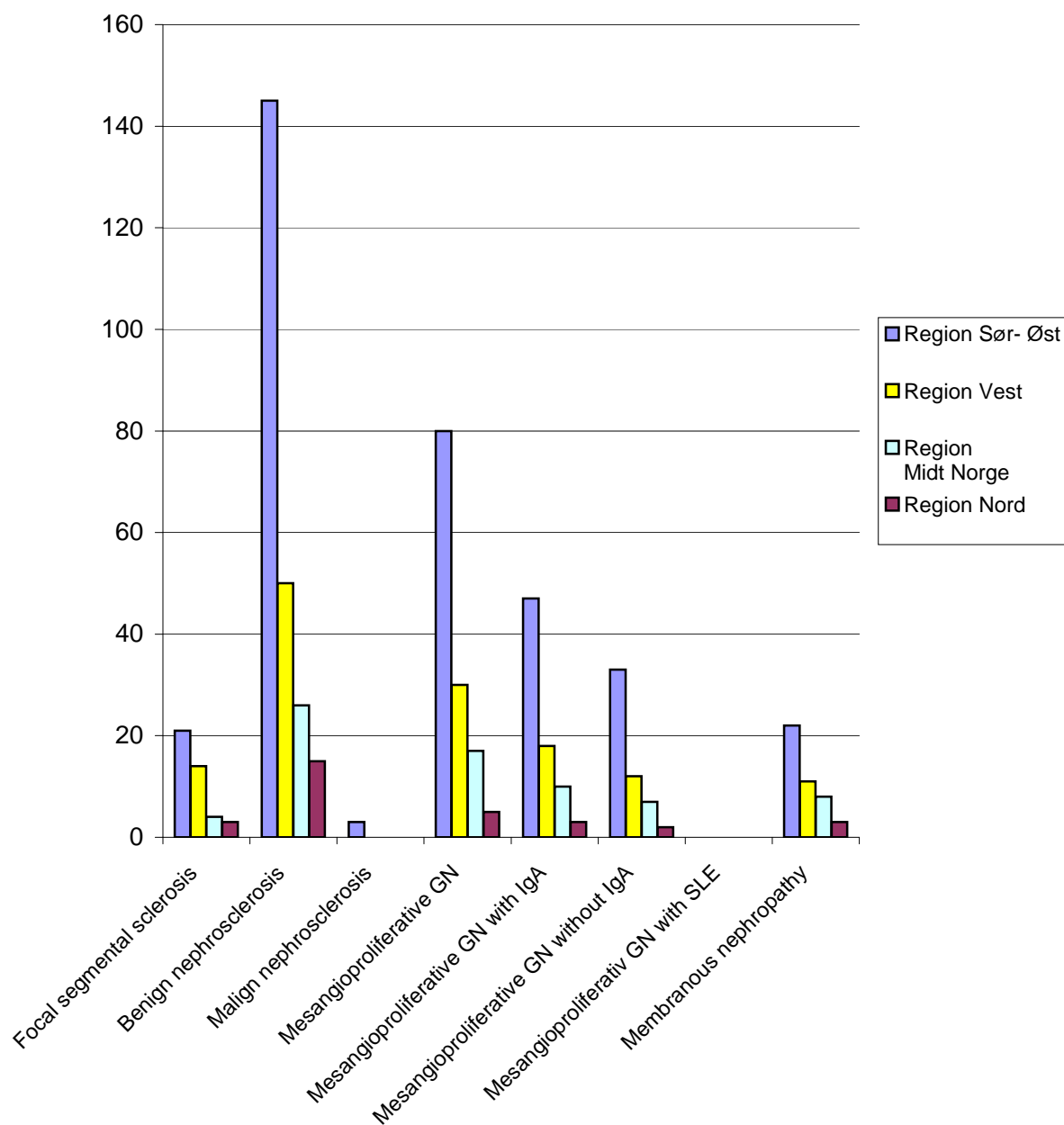
Histopathology diagnosis % of all, 2009



n=612

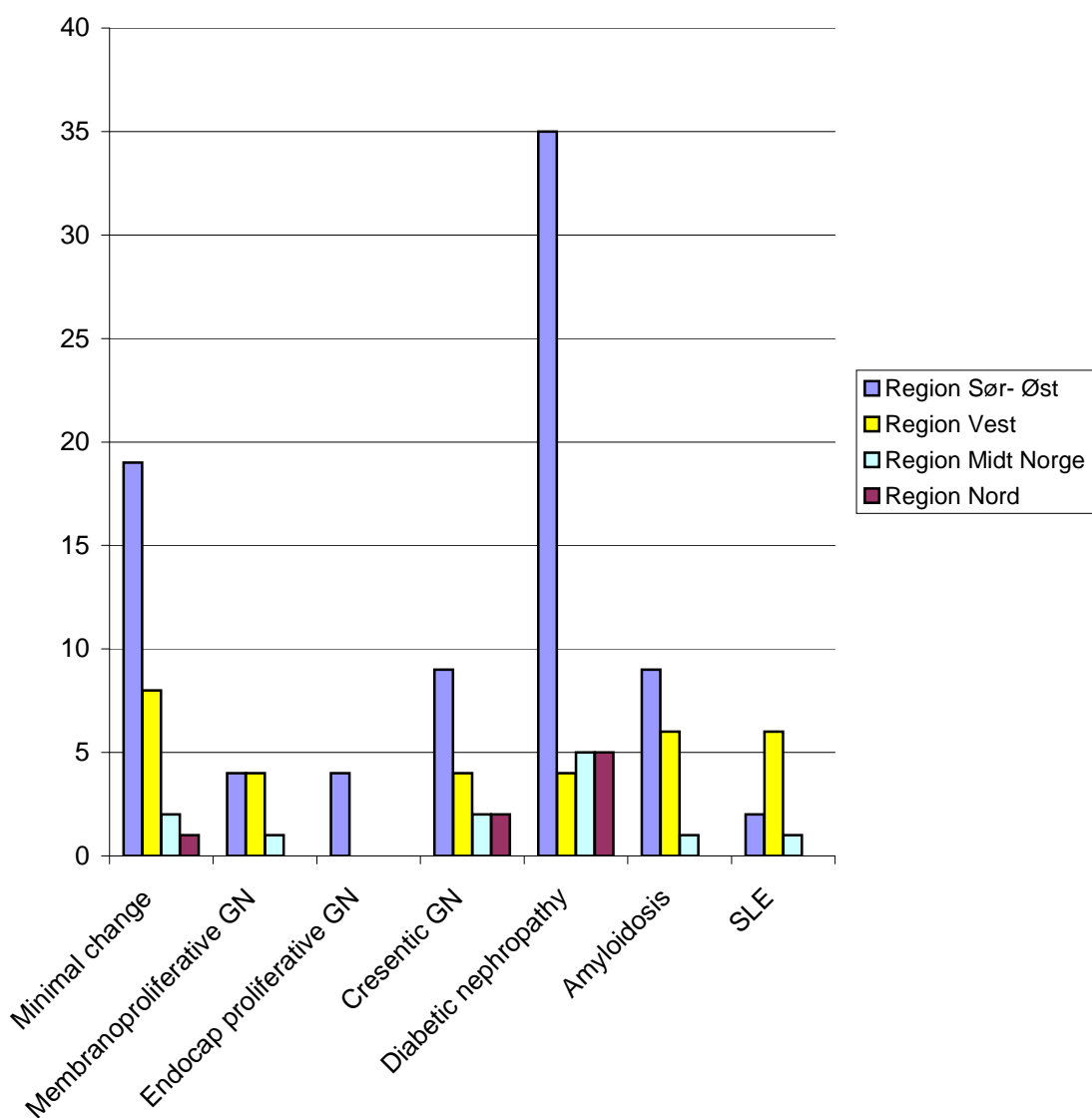
Diagnosis	%
Minimal change	4,9
Membranoproliferative GN	1,5
Focal segmental sclerosis	6,9
Benign nephrosclerosis	38,6
Malign nephrosclerosis	0,5
Membranous nephropathy	7,2
Mesangioproliferative GN	21,6
Mesangioproliferative GN with IgA	12,7
Mesangioproliferative GN without IgA	8,8
Mesangioproliferative GN with SLE	0,0
Endocap proliferative GN	0,7
Crescentic GN	2,8
Diabetic nephropathy	8,0
Amyloidosis	2,6
Diffus.prol Lupusnephritis(IV)	1,5
Congenital nephropathy	4,9
Monoclonal Ig deposition disease	2,9
Cryoglobulinemia	0,0

Renal pathology in different regions, 2009



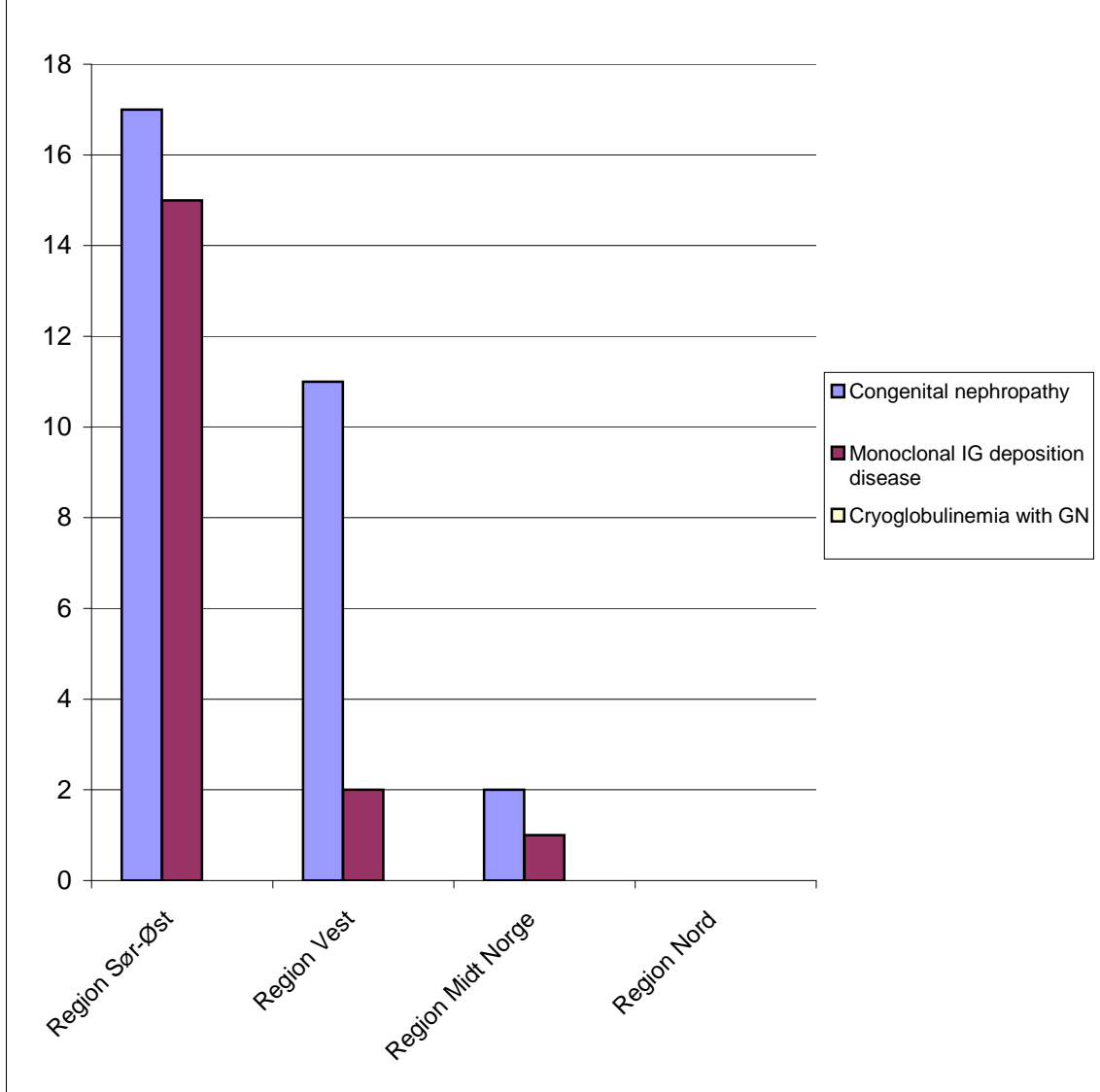
Diagnosis	Region Sør-Øst	Region Vest	Region Midt Norge	Region Nord
Focal segmental sclerosis	21	14	4	3
Benign nephrosclerosis	145	50	26	15
Malign nephrosclerosis	3	0	0	0
Mesangioproliferative GN	80	30	17	5
Mesangioproliferative GN with IgA	47	18	10	3
Mesangioproliferative GN without IgA	33	12	7	2
Mesangioproliferativ GN with SLE	0	0	0	0
Membranous nephropathy	22	11	8	3

Renal pathology in different regions, 2009



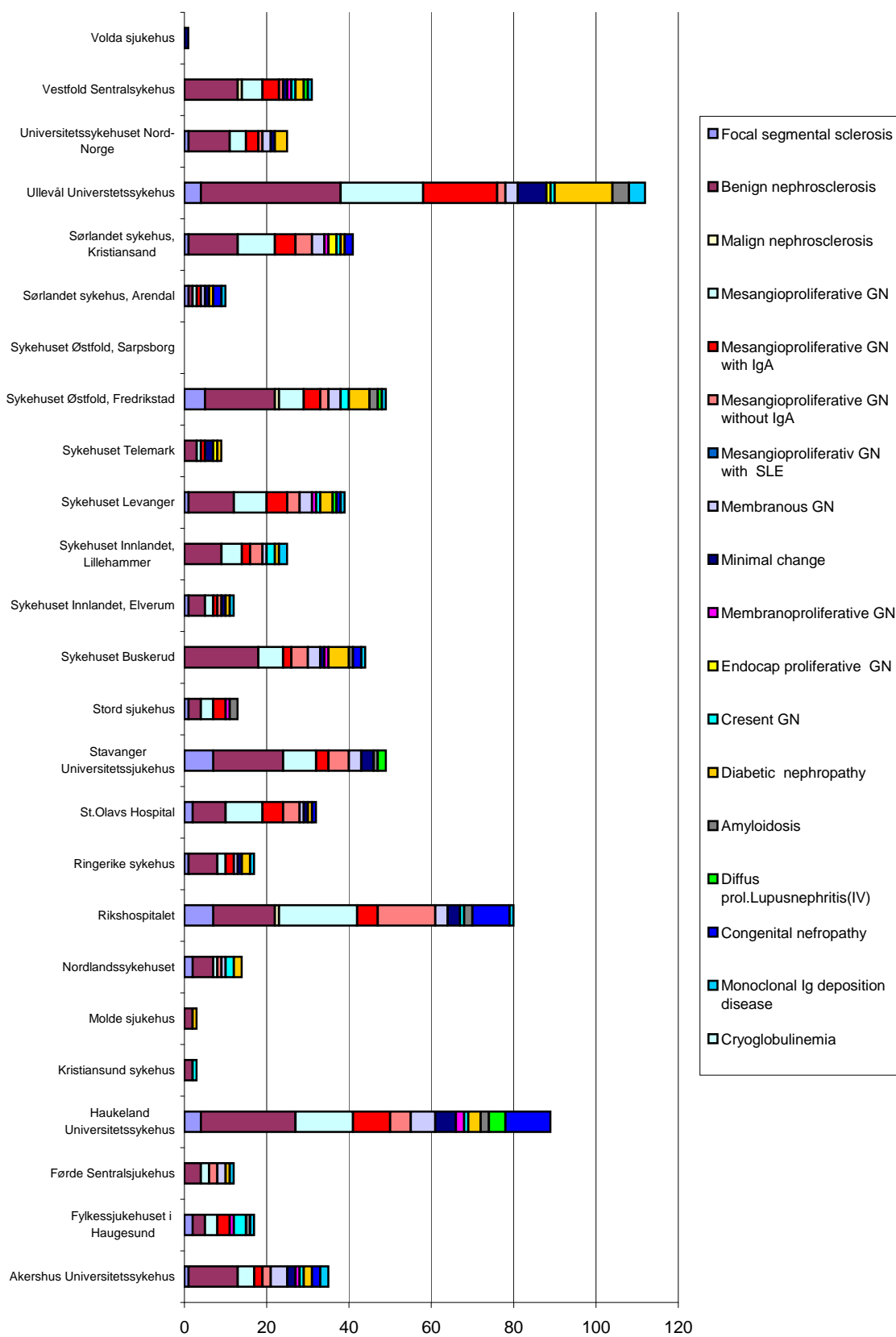
Diagnosis	Region Sør- Øst	Region Vest	Region Midt Norge	Region Nord
Minimal change	19	8	2	1
Membranoproliferative GN	4	4	1	0
Endocap proliferative GN	4	0	0	0
Cresentic GN	9	4	2	2
Diabetic nephropathy	35	4	5	5
Amyloidosis	9	6	1	0
SLE	2	6	1	0

Renal pathology in different regions, 2009

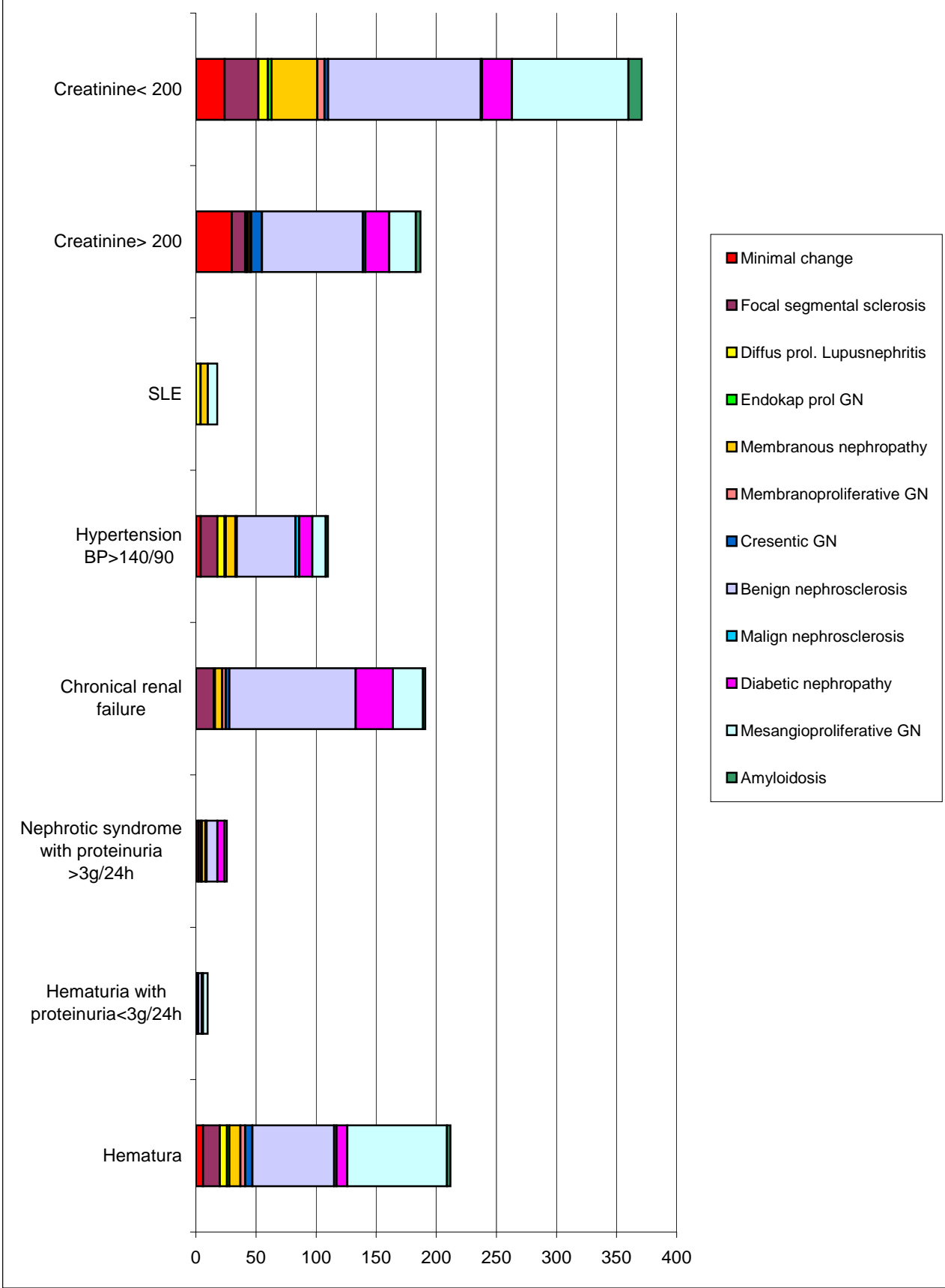


Diagnosis	Region Sør-Øst	Region Vest	Region Midt Norge	Region Nord
Congenital nephropathy	17	11	2	0
Monoclonal IG deposition disease	15	2	1	0
Cryoglobulinemia with GN	0	0	0	0

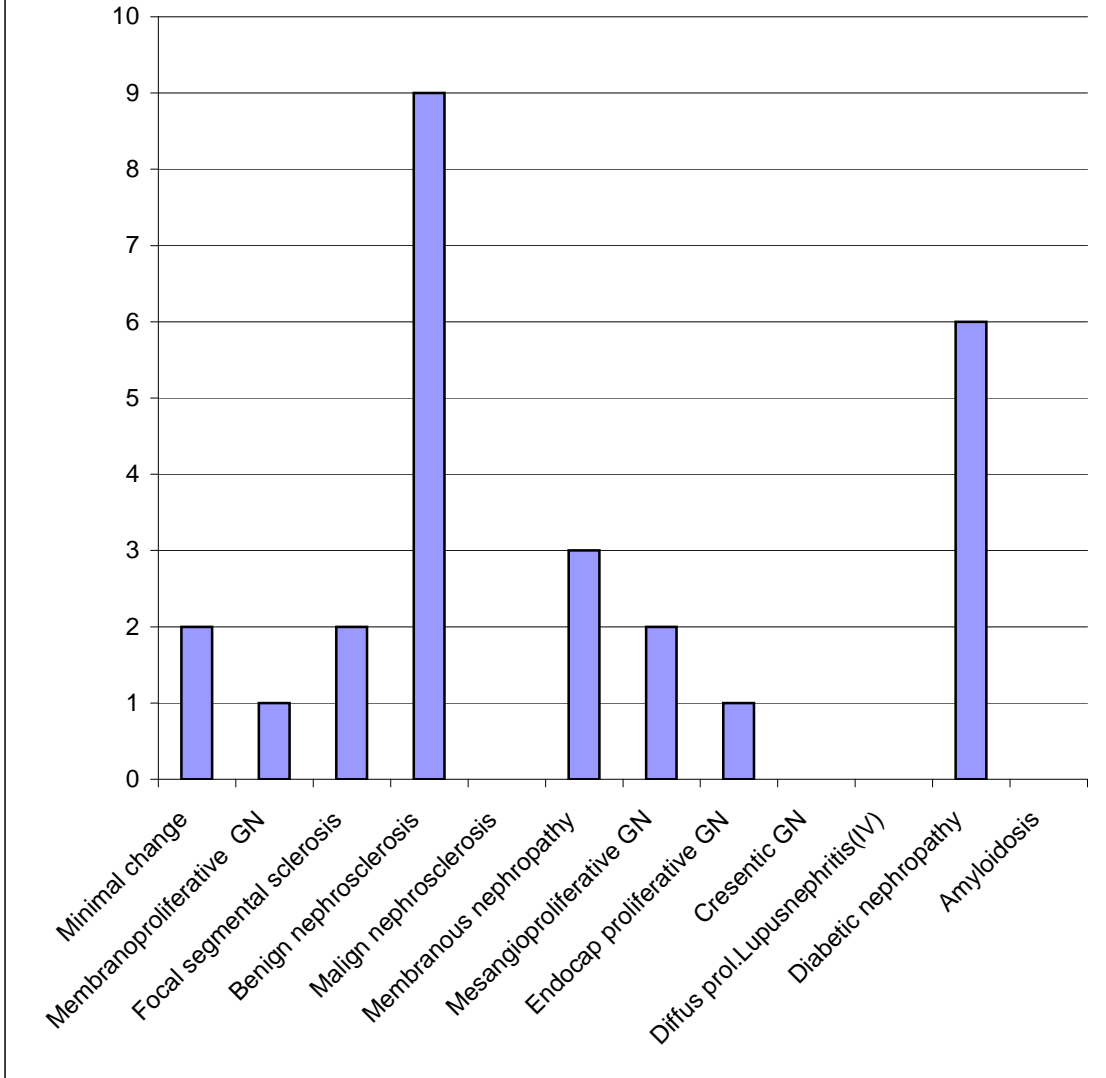
Morphology at different hospitals, 2009



Clinical indication with morphology, 2009

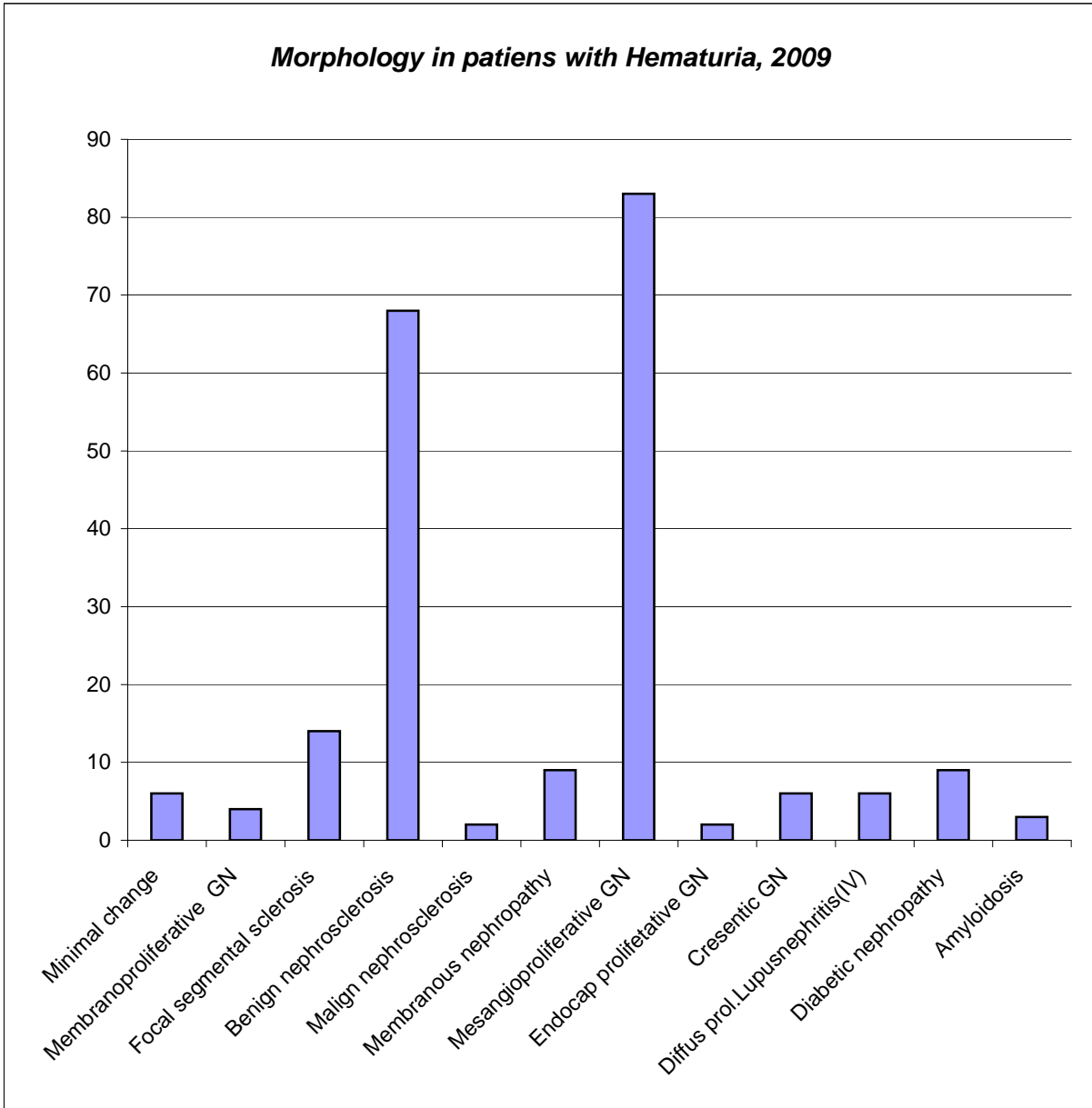


Morphology in patients with nephrotic syndrom and proteinuria >3g/24h, 2009



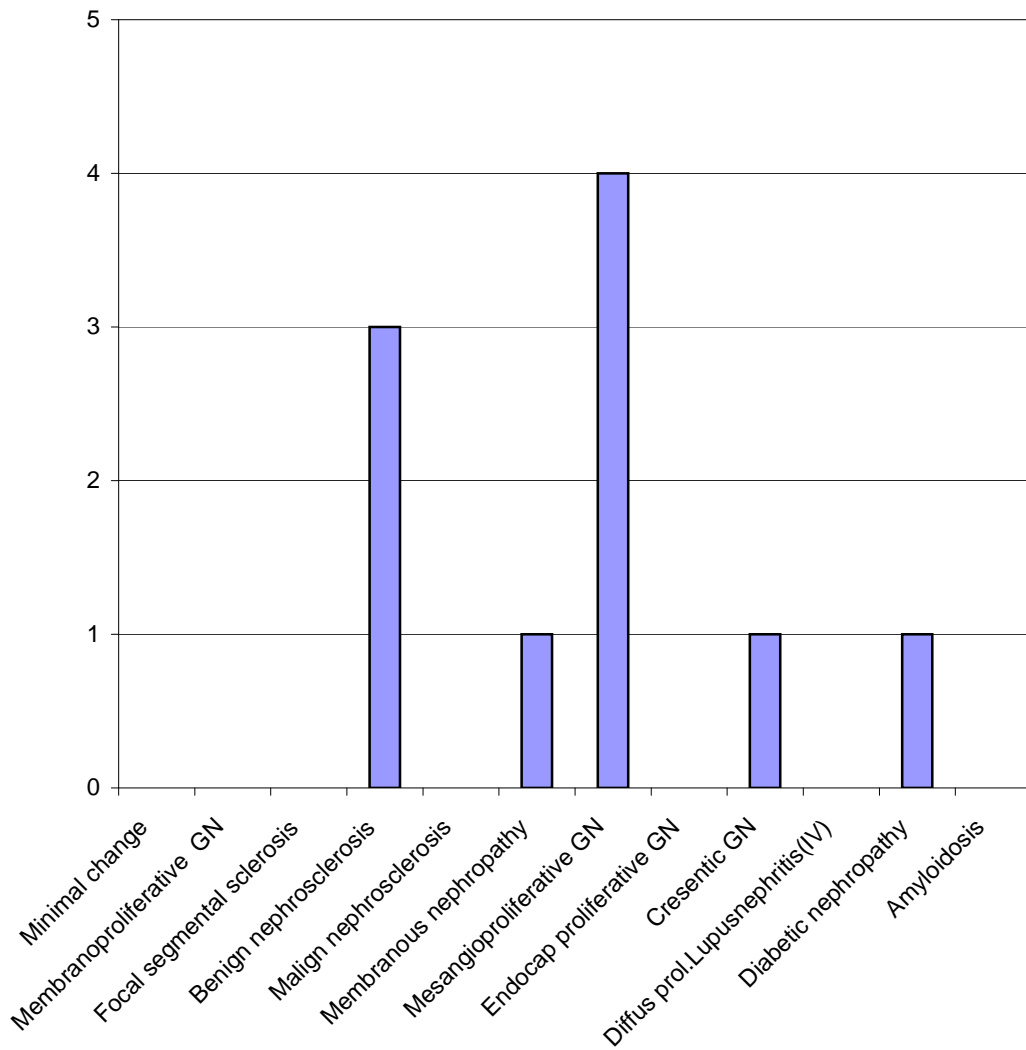
Morphology	Number
Minimal change	2
Membranoproliferative GN	1
Focal segmental sclerosis	2
Benign nephrosclerosis	9
Malign nephrosclerosis	0
Membranous nephropathy	3
Mesangioproliferative GN	2
Endocap proliferative GN	1
Cresentic GN	0
Diffus prol.Lupusnephritis(IV)	0
Diabetic nephropathy	6
Amyloidosis	0

Morphology in patients with Hematuria, 2009



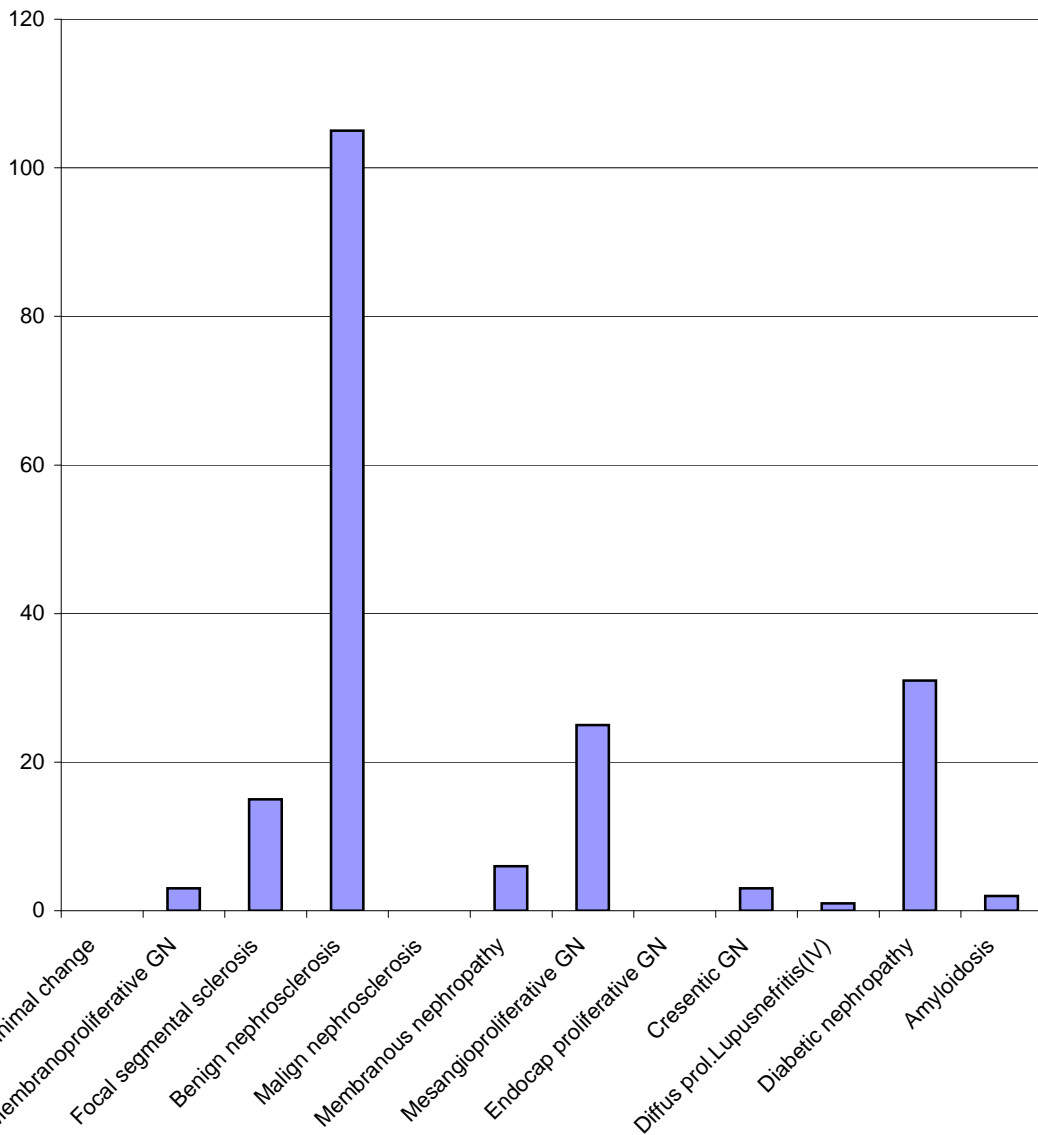
Morphology	Number
Minimal change	6
Membranoproliferative GN	4
Focal segmental sclerosis	14
Benign nephrosclerosis	68
Malign nephrosclerosis	2
Membranous nephropathy	9
Mesangioproliferative GN	83
Endocap proliferative GN	2
Crescentic GN	6
Diffus prol.Lupusnephritis(IV)	6
Diabetic nephropathy	9
Amyloidosis	3

**Morphology in patients with hematuria
and proteinuria <3g/24h, 2009**



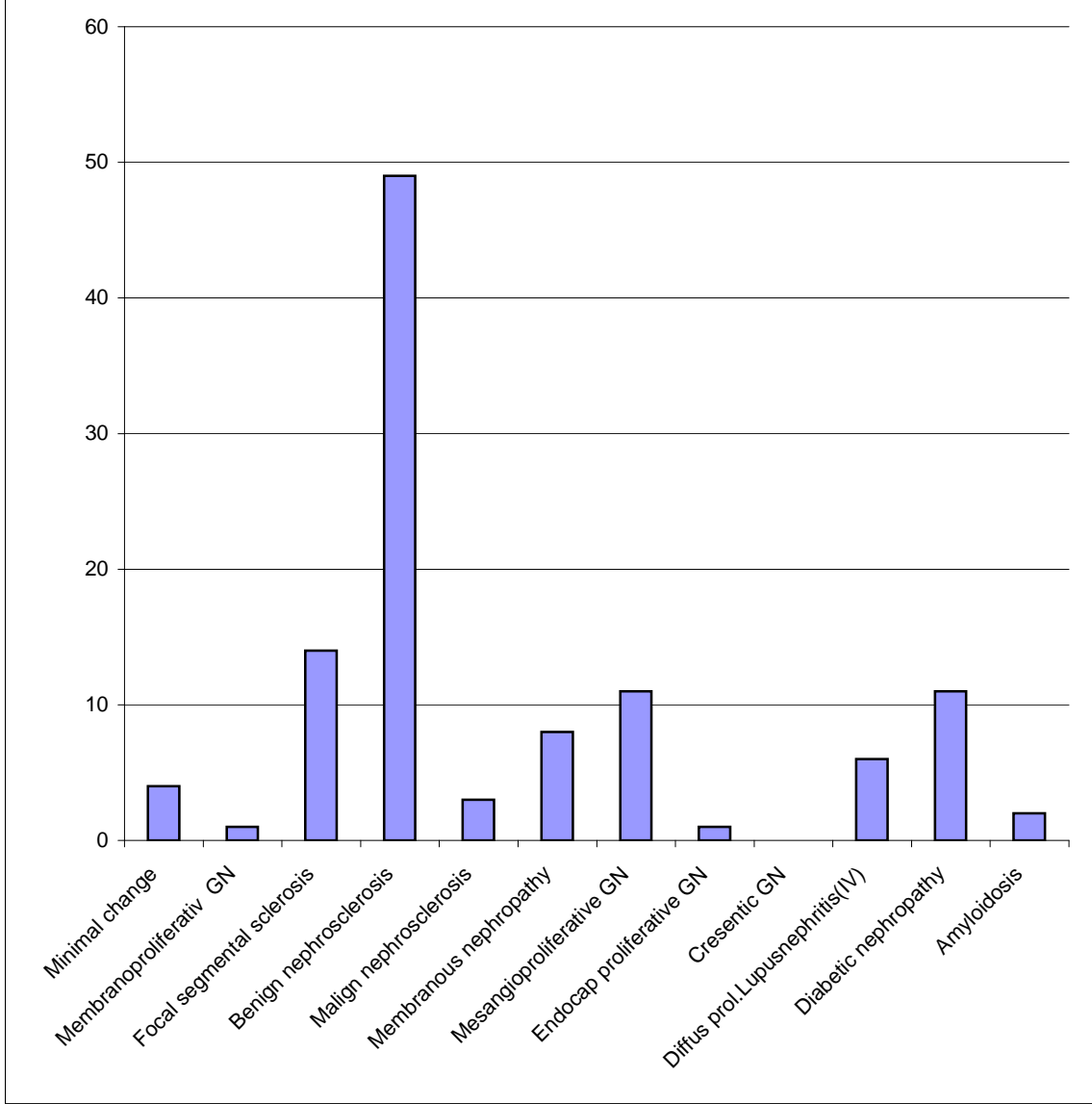
Morphology	Number
Minimal change	0
Membranoproliferative GN	0
Focal segmental sclerosis	0
Benign nephrosclerosis	3
Malign nephrosclerosis	0
Membranous nephropathy	1
Mesangioproliferative GN	4
Endocap proliferative GN	0
Cresentic GN	1
Diffus prol.Lupusnephritis(IV)	0
Diabetic nephropathy	1
Amyloidosis	0

Morphology in patients with chronic renal failure, 2009



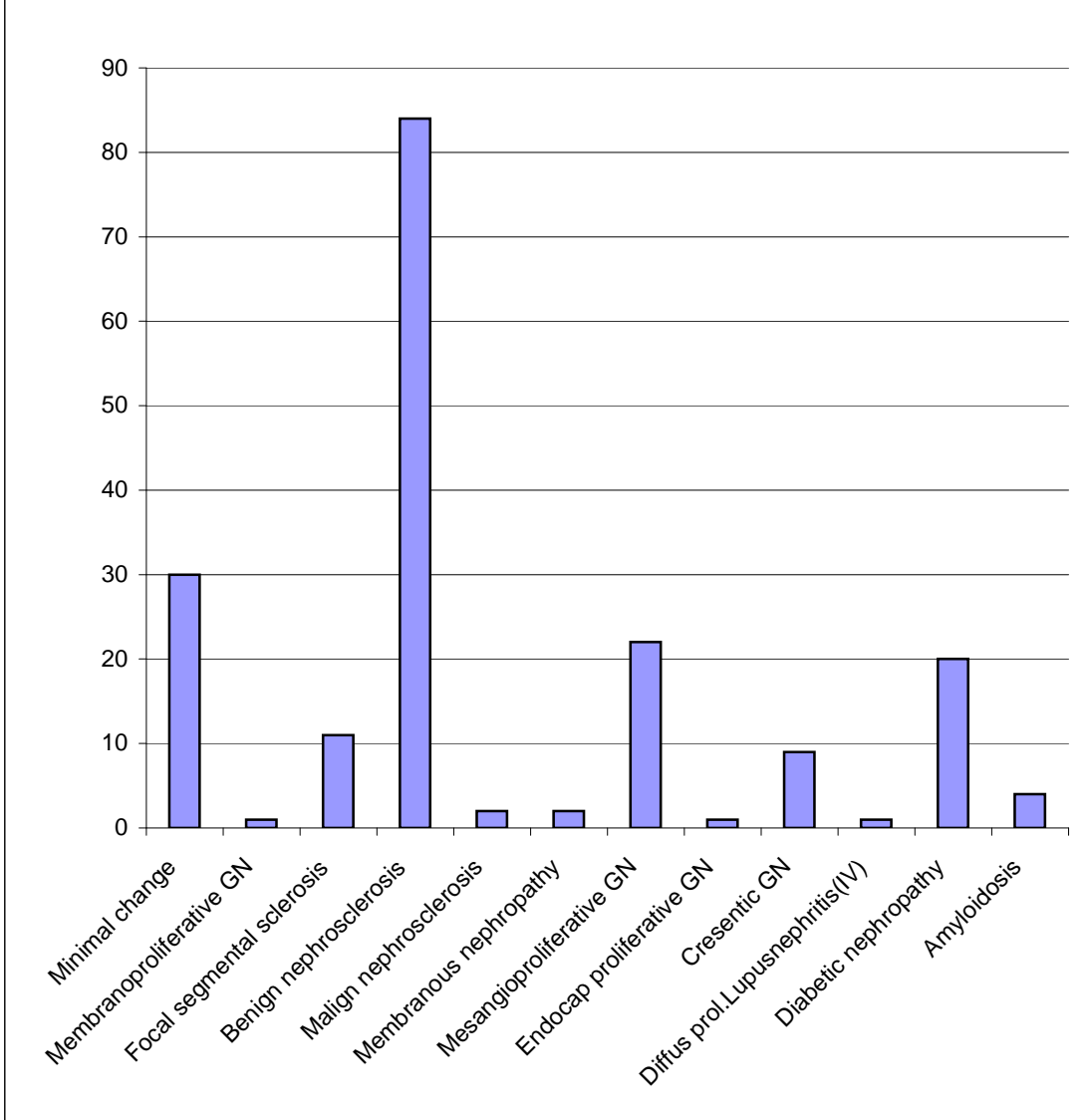
Morphology	Number
Minimal change	0
Membranoproliferative GN	3
Focal segmental sclerosis	15
Benign nephrosclerosis	105
Malign nephrosclerosis	0
Membranous nephropathy	6
Mesangioproliferative GN	25
Endocap proliferative GN	0
Crescentic GN	3
Diffus prol.Lupusnephritis(IV)	1
Diabetic nephropathy	31
Amyloidosis	2

Morphology in patients with hypertension BP >140/90, 2009



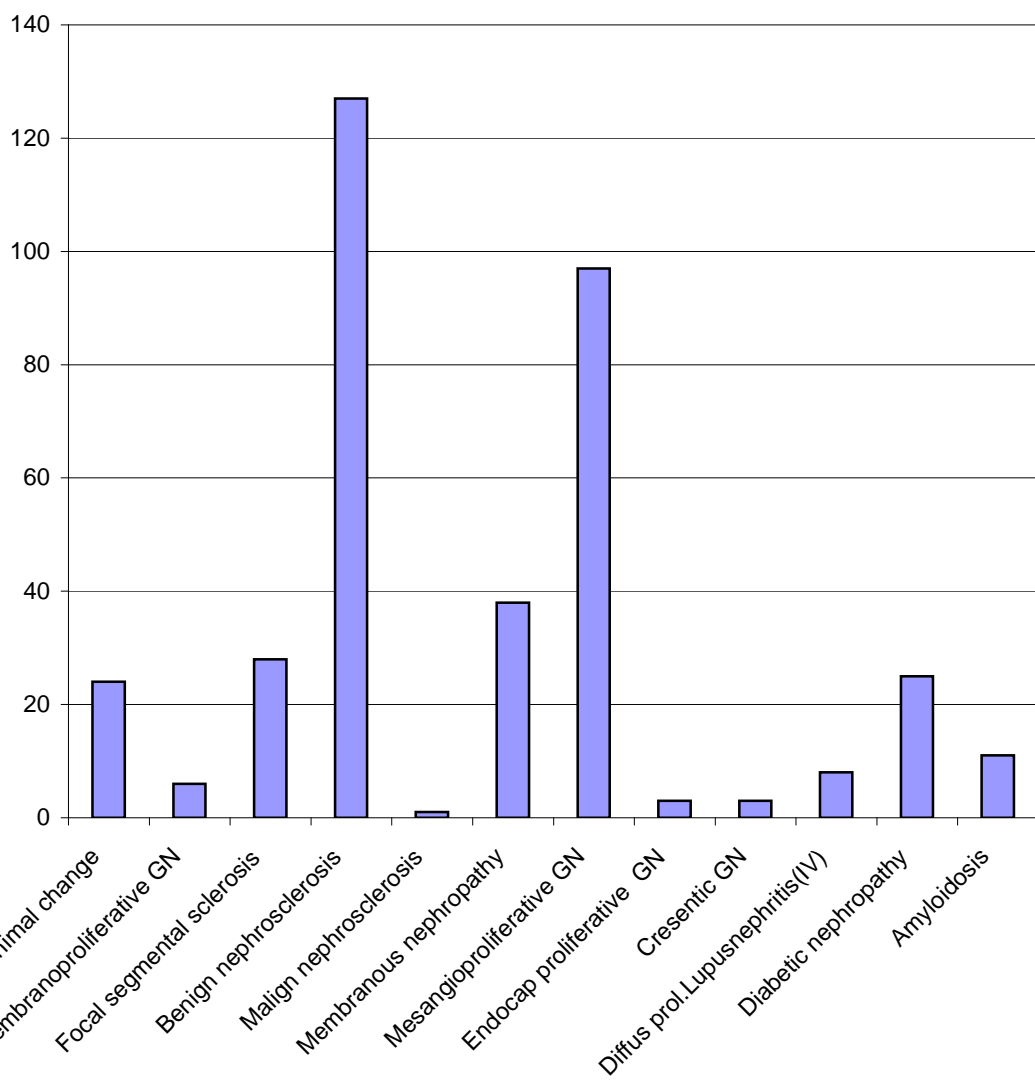
Morphology	Number
Minimal change	4
Membranoproliferativ GN	1
Focal segmental sclerosis	14
Benign nephrosclerosis	49
Malign nephrosclerosis	3
Membranous nephropathy	8
Mesangioproliferative GN	11
Endocap proliferative GN	1
Cresentic GN	0
Diffus prol.Lupusnephritis(IV)	6
Diabetic nephropathy	11
Amyloidosis	2

Morphology in patients with creatinine >200, 2009



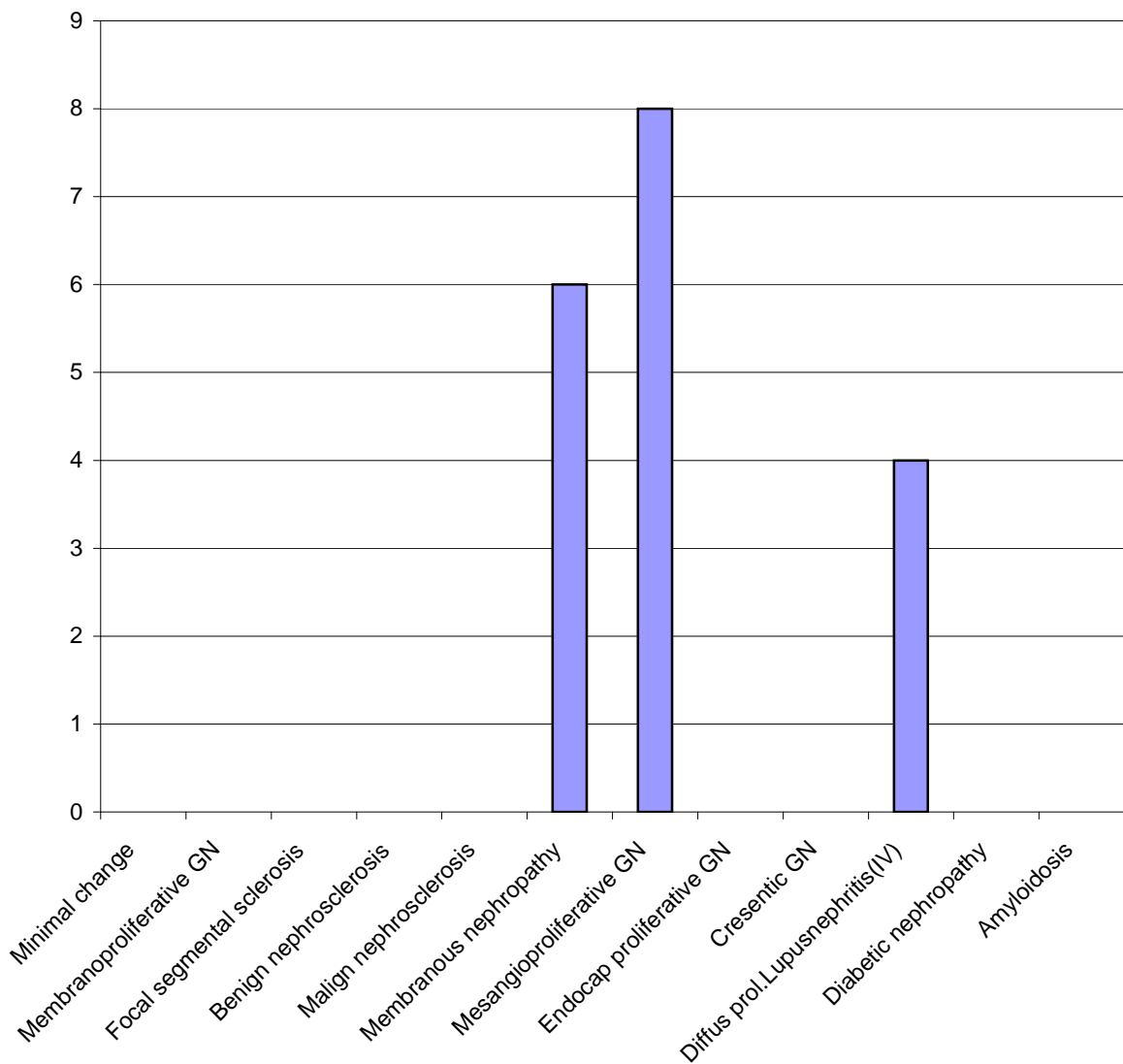
Morphology	Number
Minimal change	30
Membranoproliferative GN	1
Focal segmental sclerosis	11
Benign nephrosclerosis	84
Malign nephrosclerosis	2
Membranous nephropathy	2
Mesangioproliferative GN	22
Endocap proliferative GN	1
Crescentic GN	9
Diffus prol.Lupusnephritis(IV)	1
Diabetic nephropathy	20
Amyloidosis	4

Morphology in patients with creatinine <200, 2009



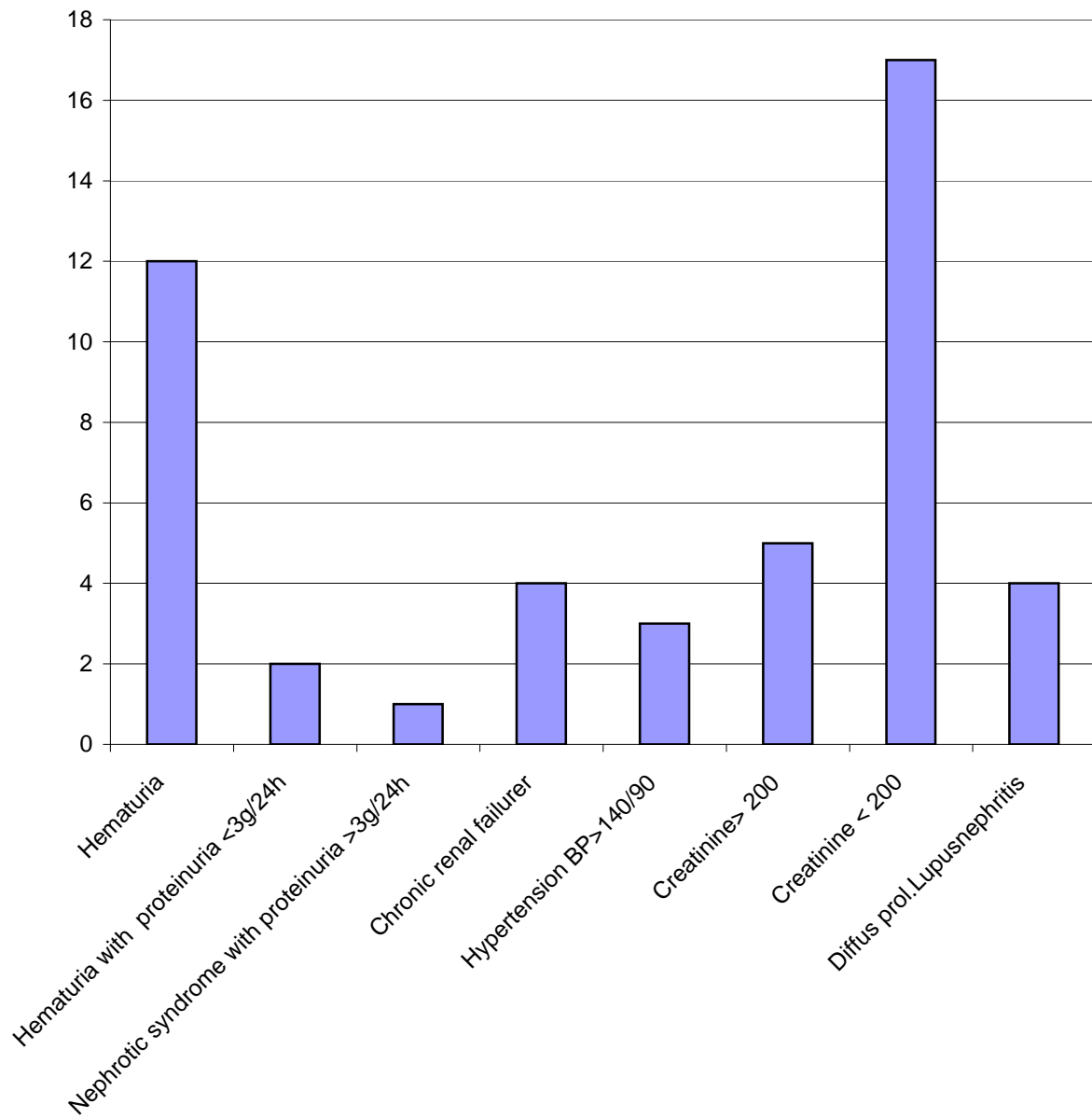
Morphology	Number
Minimal change	24
Membranoproliferative GN	6
Focal segmental sclerosis	28
Benign nephrosclerosis	127
Malign nephrosclerosis	1
Membranous nephropathy	38
Mesangioproliferative GN	97
Endocap proliferative GN	3
Crescentic GN	3
Diffus prol.Lupusnephritis(IV)	8
Diabetic nephropathy	25
Amyloidosis	11

Morphology in patients with SLE, 2009



Morphology	Number
Minimal change	0
Membranoproliferative GN	0
Focal segmental sclerosis	0
Benign nephrosclerosis	0
Malign nephrosclerosis	0
Membranous nephropathy	6
Mesangioproliferative GN	8
Endocap proliferative GN	0
Crescentic GN	0
Diffus prol. Lupusnephritis(IV)	4
Diabetic nephropathy	0
Amyloidosis	0

SLE based on clinical form information and on Diffus prol. Lupus nephritis, 2009

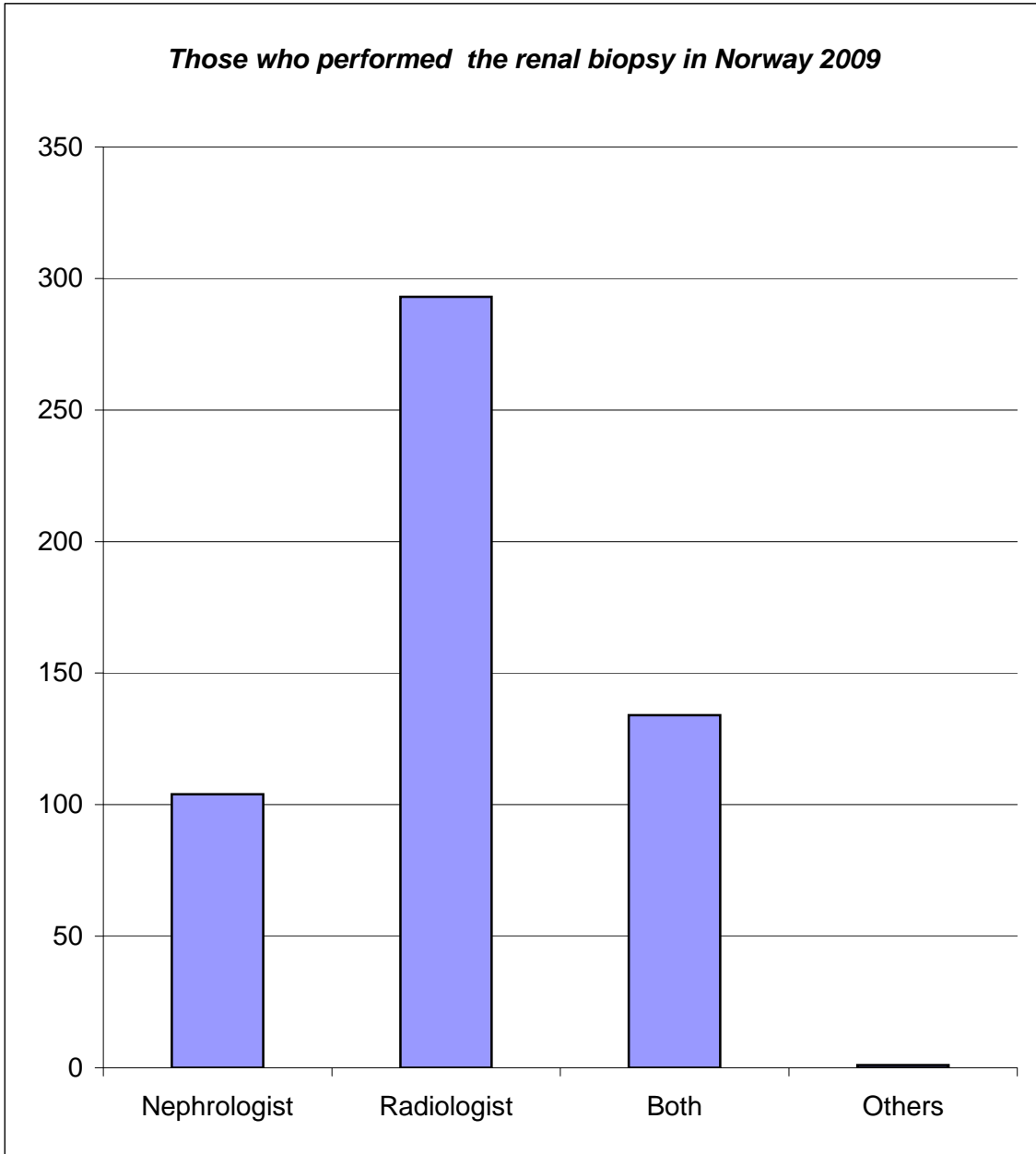


Clinical indication

Number

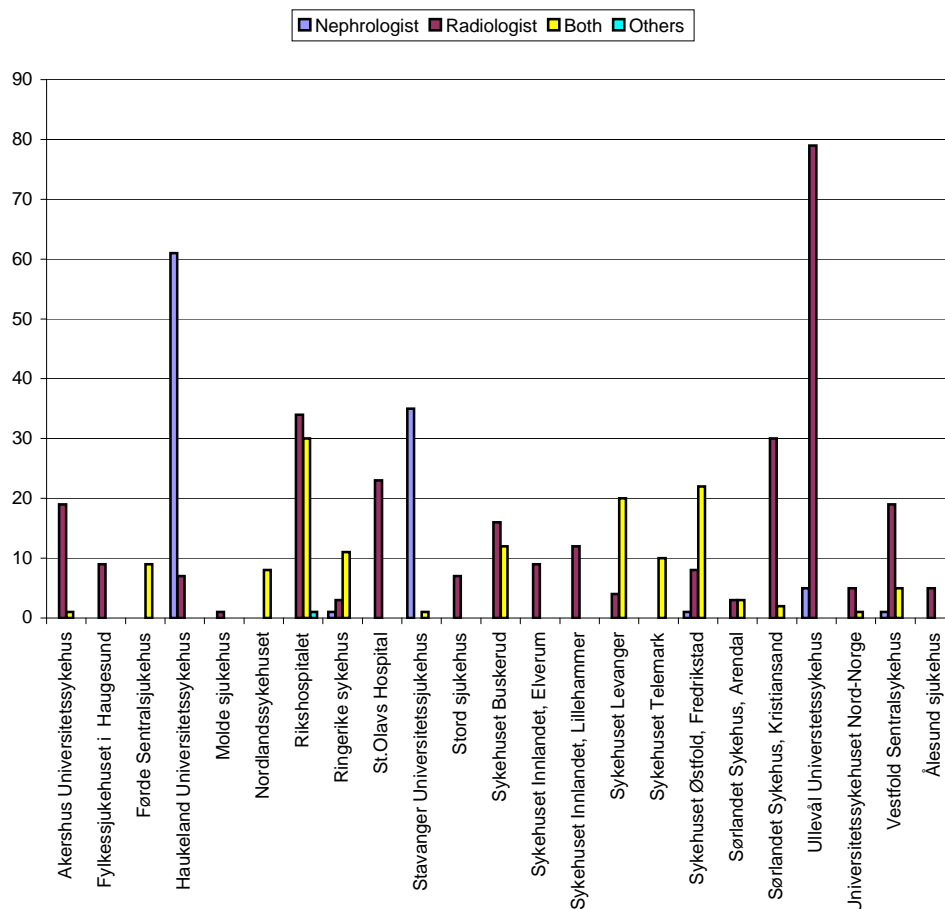
Hematuria	12
Hematuria with proteinuria <3g/24h	2
Nephrotic syndrome with proteinuria >3g/24h	1
Chronic renal failurer	4
Hypertension BP>140/90	3
Creatinine> 200	5
Creatinine < 200	17
Diffus prol.Lupusnephritis	4

Those who performed the renal biopsy in Norway 2009



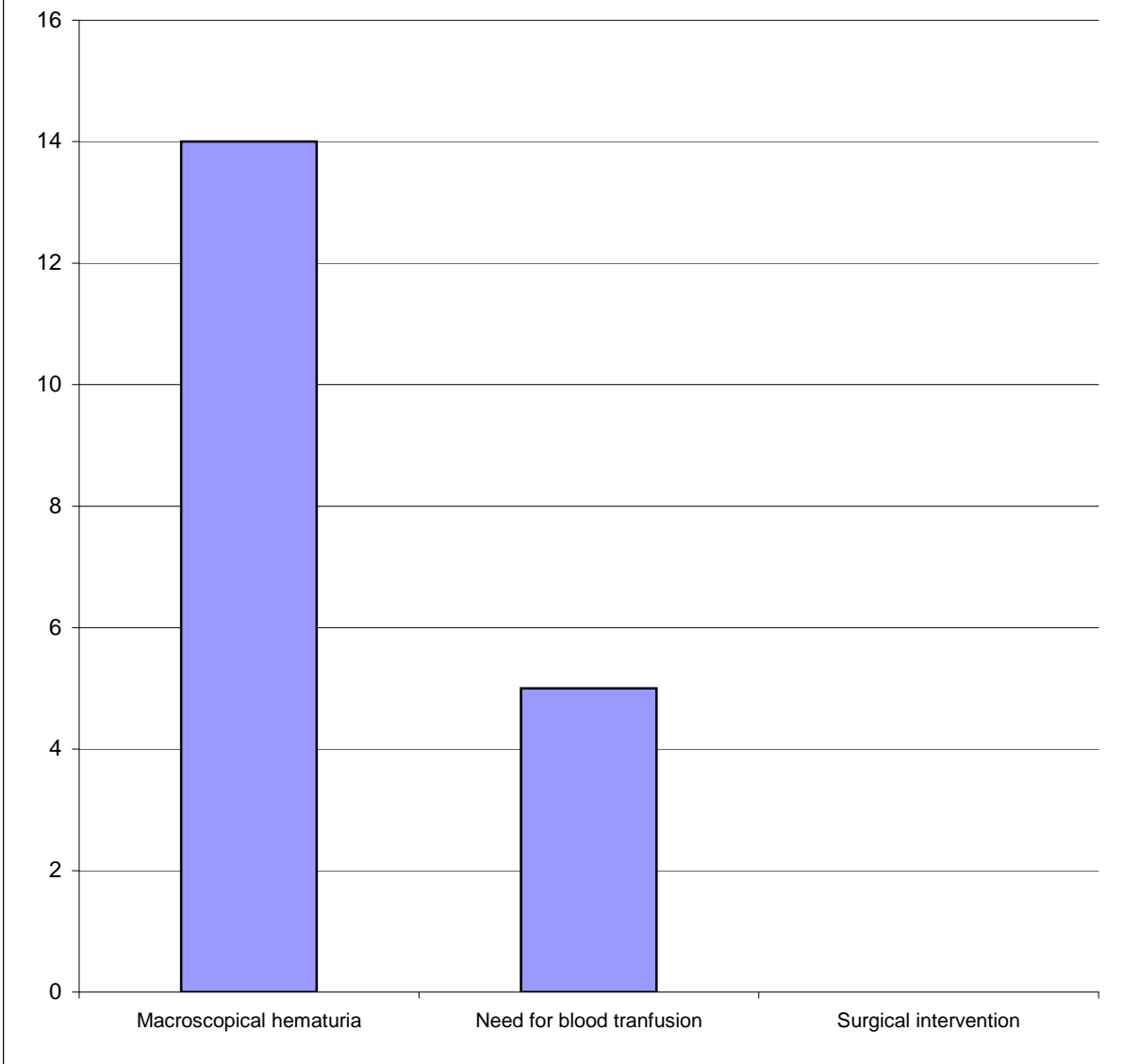
Performed the biopsy	Number
Nephrologist	104
Radiologist	293
Both	134
Others	1

Those who performed the renal biopsy at different hospitals, 2009



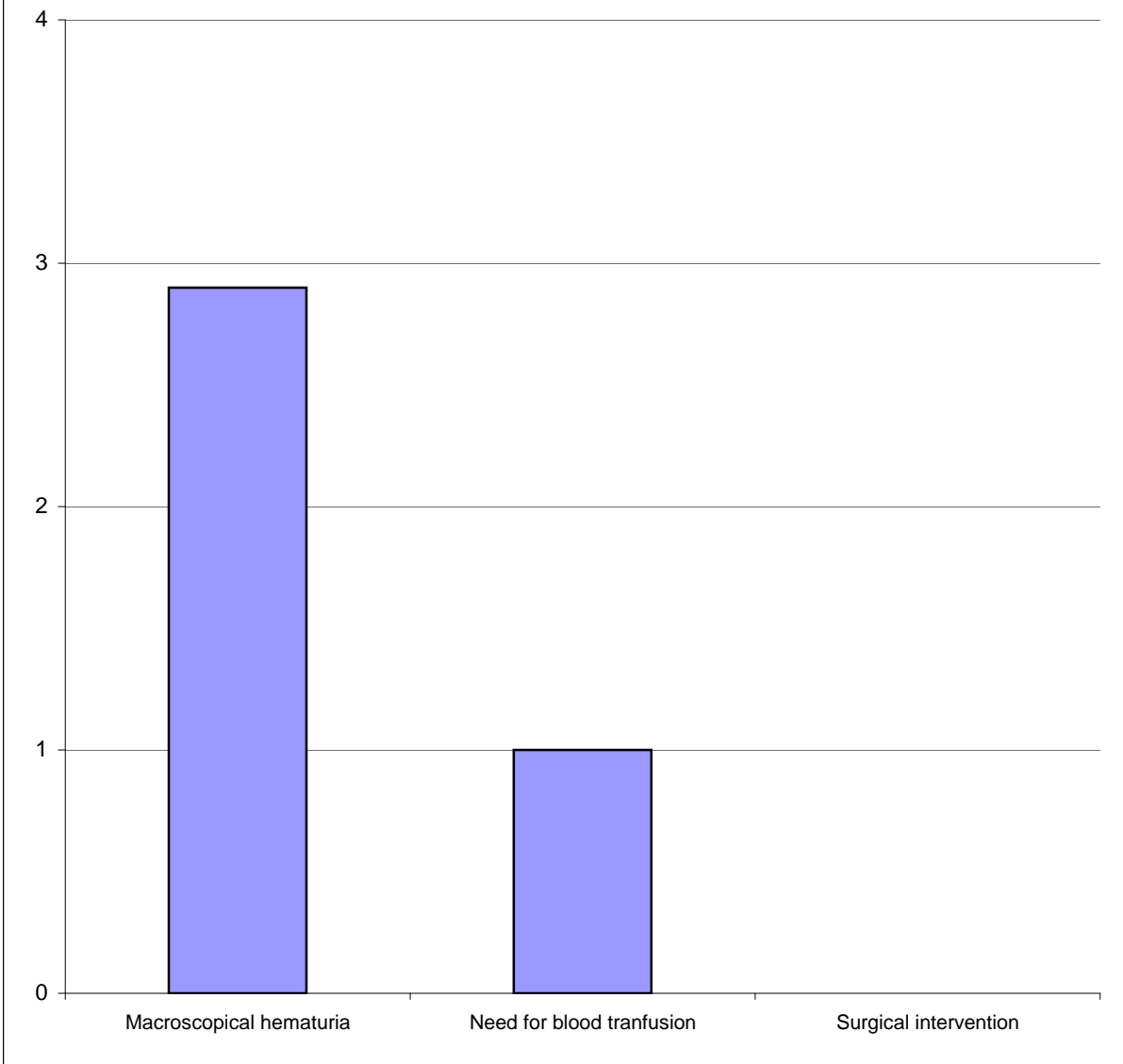
Hospital	Nephrologist	Radiologist	Both	Others
Akershus Universitetssykehus	0	19	1	0
Fylkessjukehuset i Haugesund	0	9	0	0
Førde Sentralsjukehus	0	0	9	0
Haukeland Universitetssykehus	61	7	0	0
Molde sjukehus	0	1	0	0
Nordlandssykehuset	0	0	8	0
Rikshospitalet	0	34	30	1
Ringerike sykehus	1	3	11	0
St.Olavs Hospital	0	23	0	0
Stavanger Universitetssjukehus	35	0	1	0
Stord sjukehus	0	7	0	0
Sykehuset Buskerud	0	16	12	0
Sykehuset Innlandet, Elverum	0	9	0	0
Sykehuset Innlandet, Lillehammer	0	12	0	0
Sykehuset Levanger	0	4	20	0
Sykehuset Telemark	0	0	10	0
Sykehuset Østfold, Fredrikstad	1	8	22	0
Sørlandet Sykehus, Arendal	0	3	3	0
Sørlandet Sykehus, Kristiansand	0	30	2	0
Ullevål Universtetssykehus	5	79	0	0
Universitetssykehuset Nord-Norge	0	5	1	0
Vestfold Sentralsykehus	1	19	5	0
Ålesund sjukehus	0	5	0	0
Toltal	104	293	135	1

Complications to renal biopsies, 2009



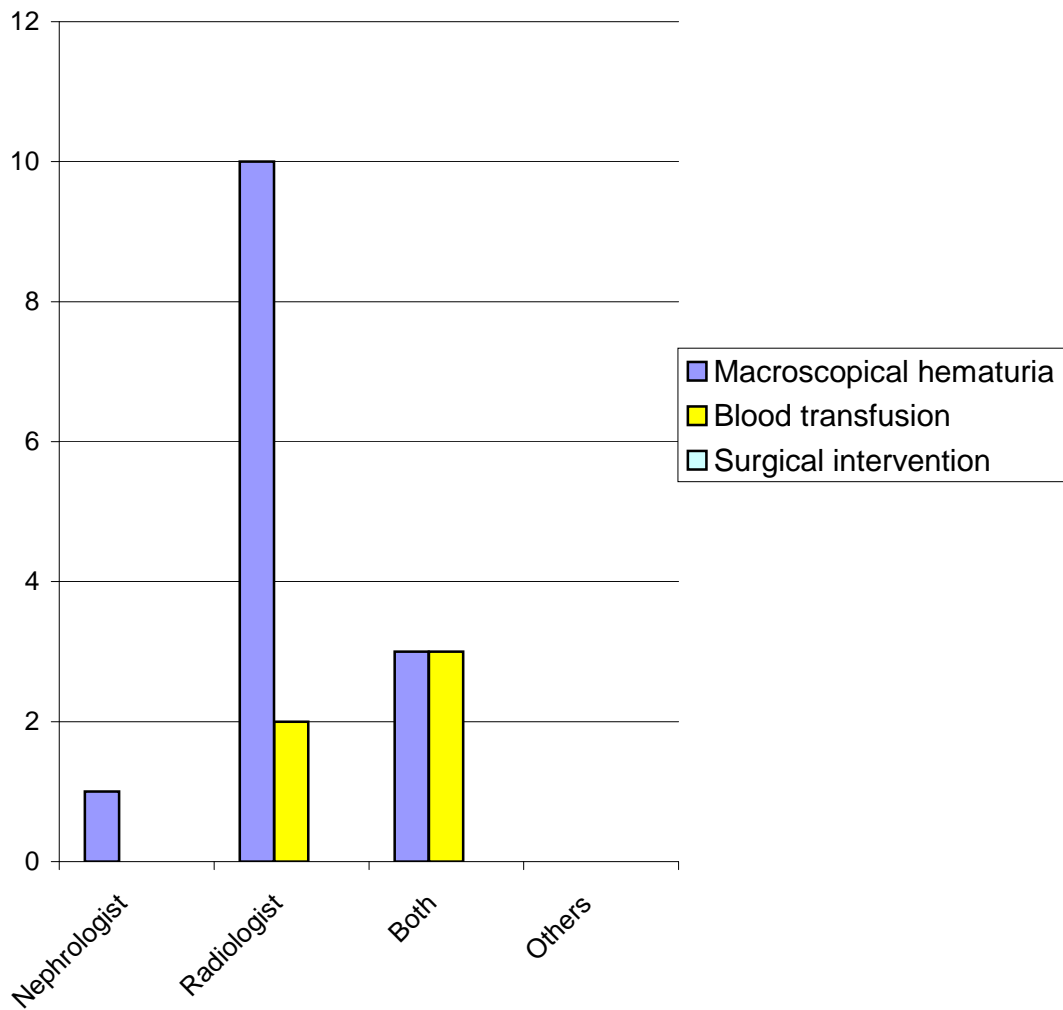
Macroscopical hematuria	14
Need for blood tranfusion	5
Surgical intervention	0

Complication to renal biopsies (%), 2009



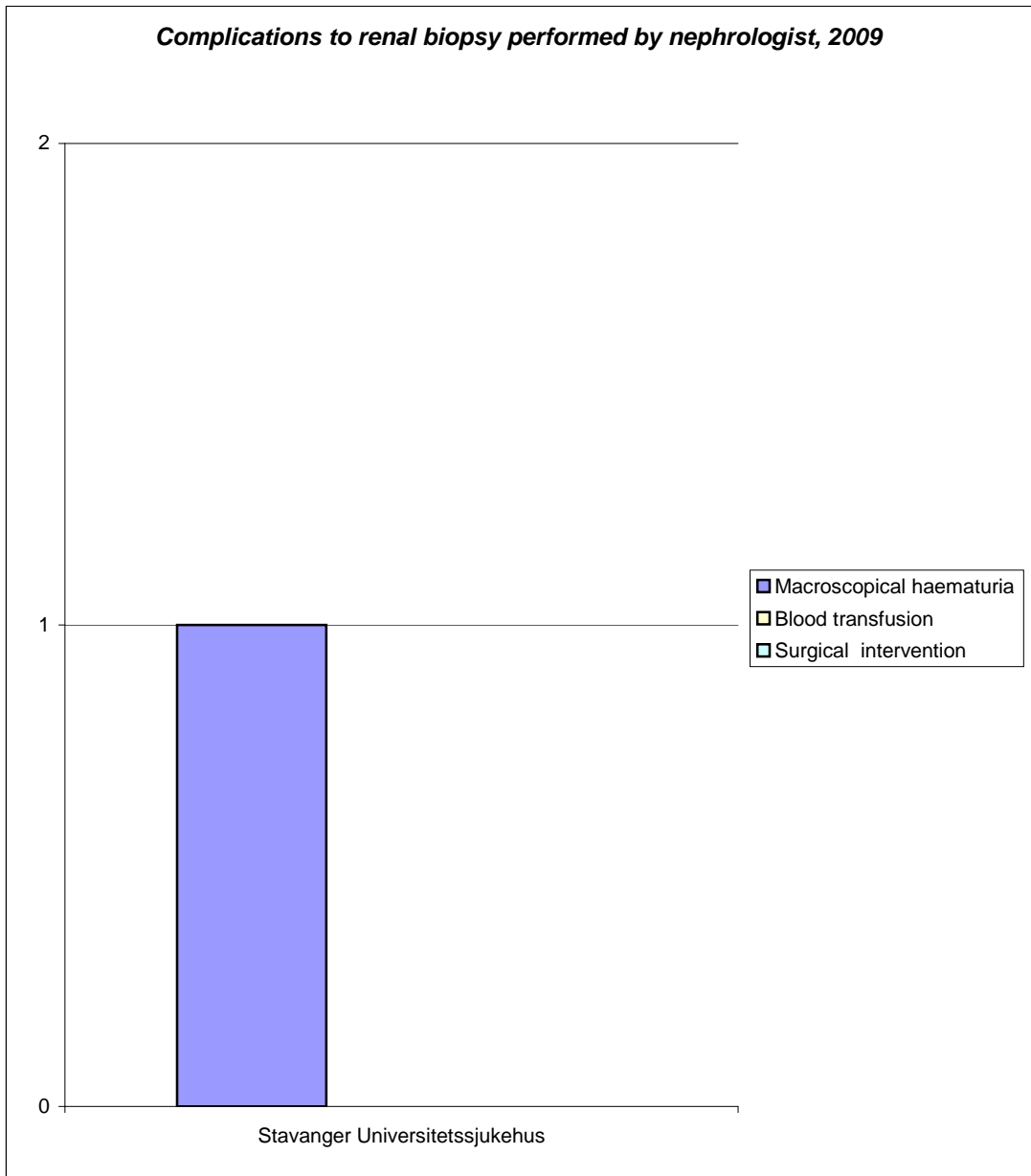
Macroscopical hematuria	2,9
Need for blood tranfusion	1
Surgical intervention	0

Complications to renal biopsies and who performed it, 2009



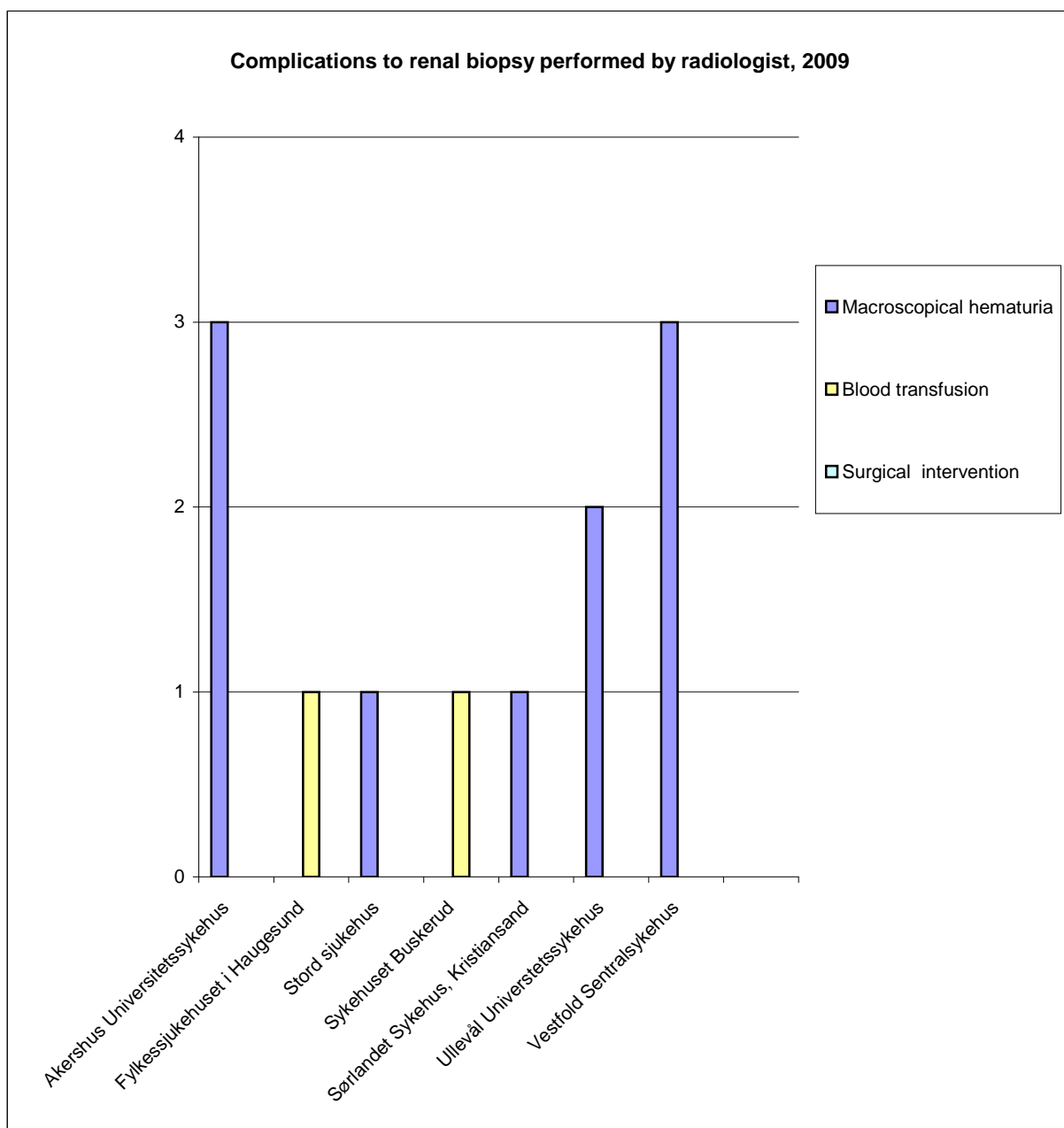
Complications	Nephrologist	Radiologist	Both	Others
Macroscopical hematuria	1	10	3	0
Blood transfusion	0	2	3	0
Surgical intervention	0	0	0	0

Complications to renal biopsy performed by nephrologist, 2009



Hospital	Macroscopical haematuria	Blood transfusion	Surgical intervention
Stavanger Universitetssjukehus	1	0	0
Total	1	0	0

Complications to renal biopsy performed by radiologist, 2009



Hospital	Macroscopical hematuria	Blood transfusion	Surgical intervention
Akershus Universitetssykehus	3	0	0
Fylkessjukehuset i Haugesund	0	1	0
Stord sjukehus	1	0	0
Sykehuset Buskerud	0	1	0
Sørlandet Sykehus, Kristiansand	1	0	0
Ullevål Universtetssykehus	2	0	0
Vestfold Sentralsykehus	3	0	0
Total	10	2	0