

Characteristics of CKD.QLD patients by Index of Relative Socio-Economic Disadvantage (IRSD)

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Aim

To profile baseline characteristics of patients with chronic kidney disease (CKD) in the renal clinics of public hospitals by Index of Relative Socio-Economic Disadvantage (IRSD).

Background

- CKD.QLD is a program supporting surveillance, practice improvement, and research of CKD. The collaborative embraces the renal practice network in the adult public health system in Queensland: Queensland Health.
- The CKD.QLD Registry commenced patient recruitment in May 2011.
- 6,728 patients were enrolled, by informed consent, as of August 2016.

Methods

- The Socio-Economic Indexes for Areas (SEIFA) IRSD scores and their deciles were produced by the Australian Bureau of Statistics to measure socio-economic status by postcodes¹.
- In our analysis, the 10 strata IRSD deciles were regrouped into quintiles, where the highest quintile represents the least disadvantaged postal areas and the lowest quintile represents the most disadvantaged postal areas.
- Baseline characteristics of CKD.QLD patients were described across these IRSD quintiles.

Results

- A total of 5,935 patients were eligible at time of review.
- Females accounted for 46%.

- Figs 1a & 1b** show the age distribution in aggregate and by gender. Age at consent ranged from 16 to 100 years, with a mean of 65 years (median 68 years).

Fig 1a: Aggregate age distribution.
N=5,935

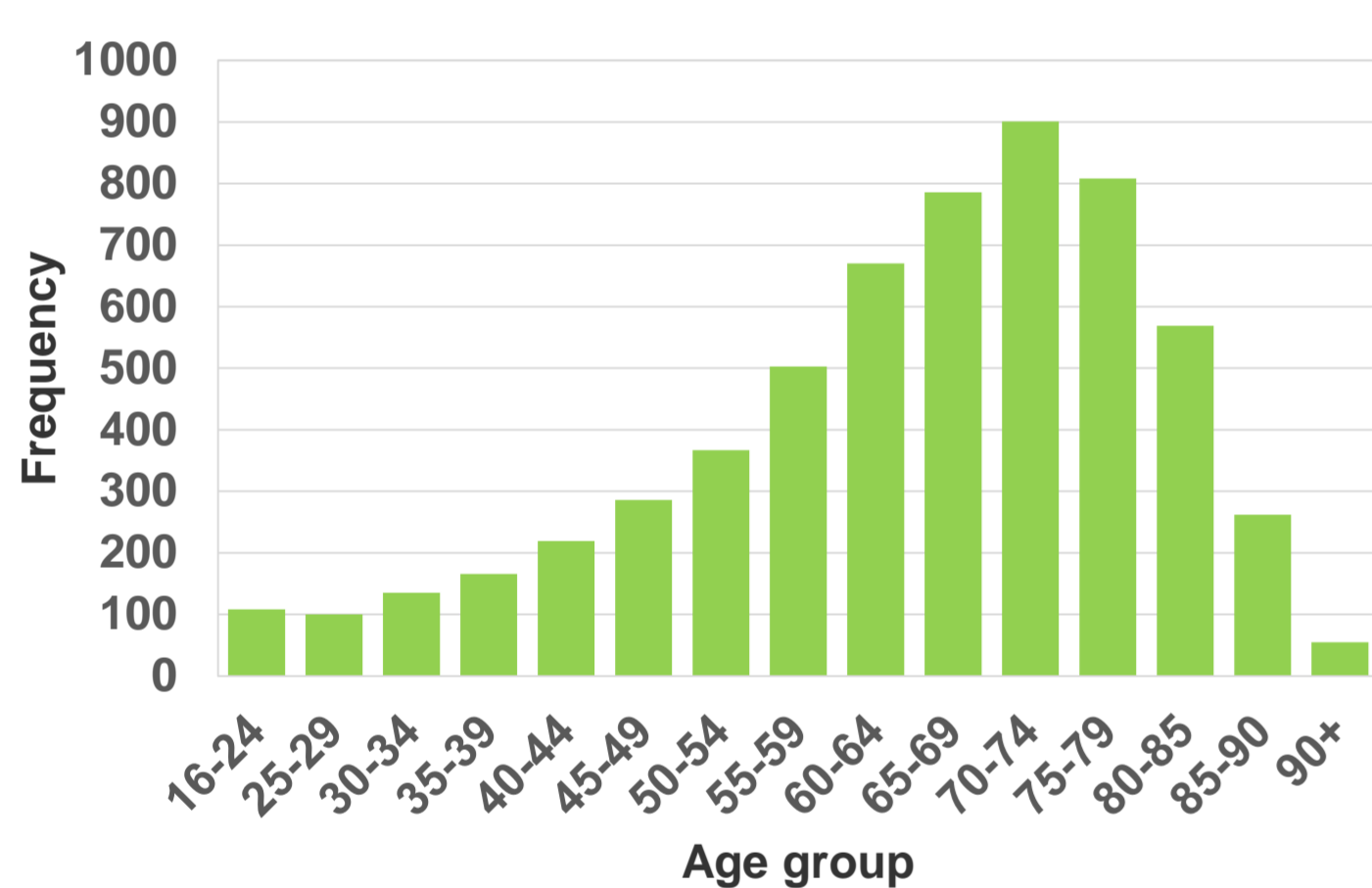
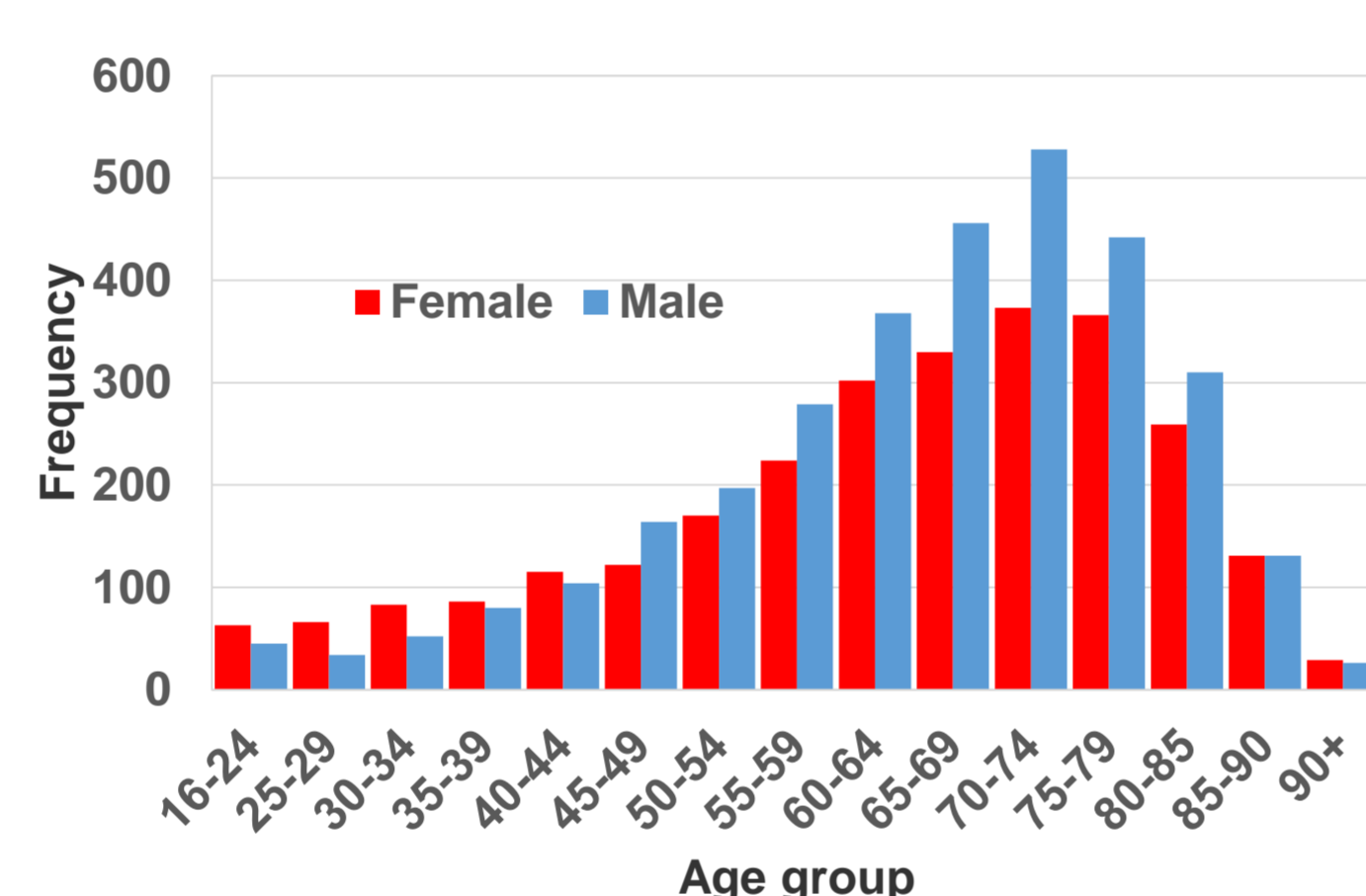


Fig 1b: Age distribution by gender.
Female=2,719; Male=3,216



- Figs 2a & 2b** show the CKD stage distribution, at time of consent, in aggregate and by gender

Fig 2a: Aggregate stage distribution.
N=5,903

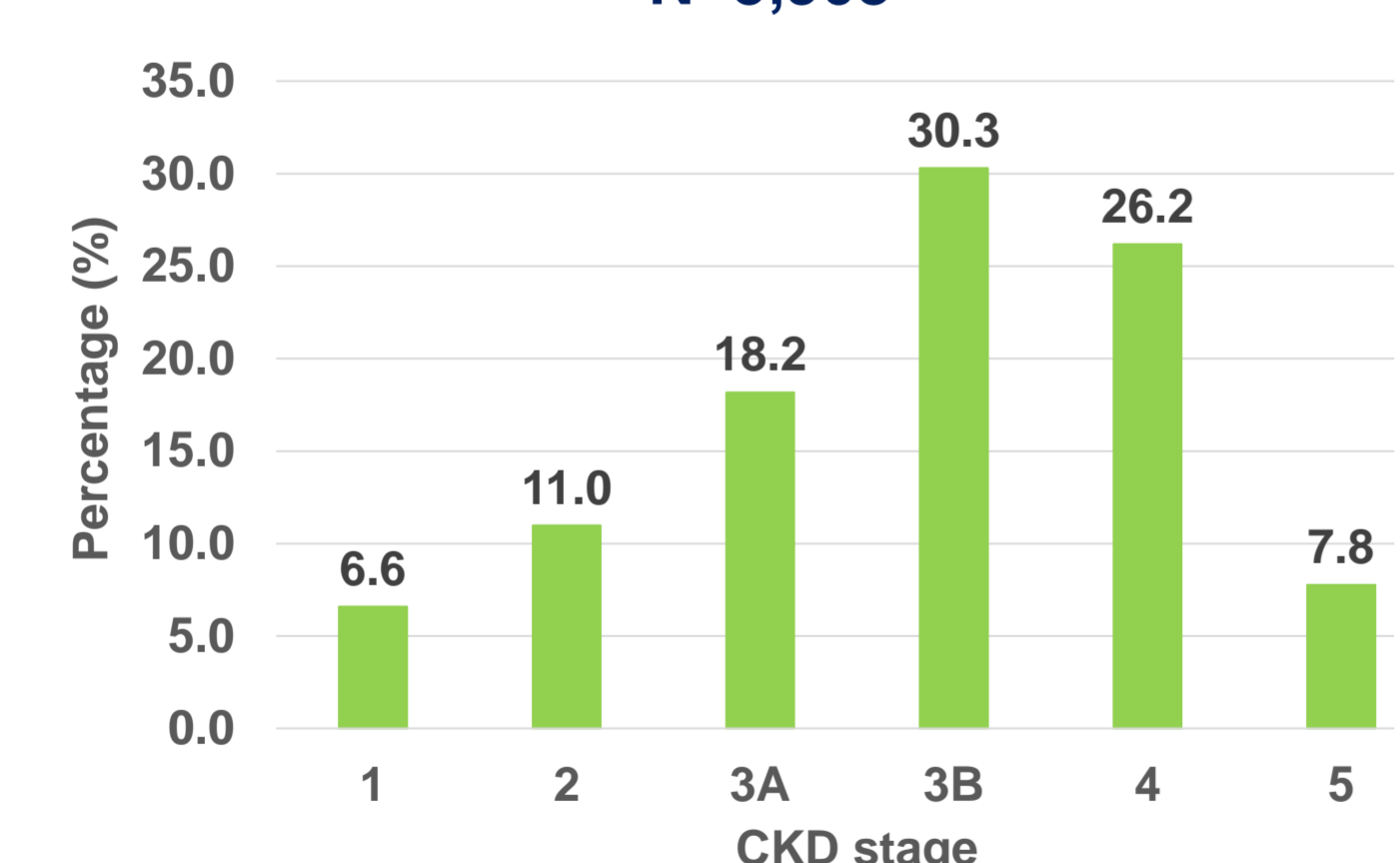
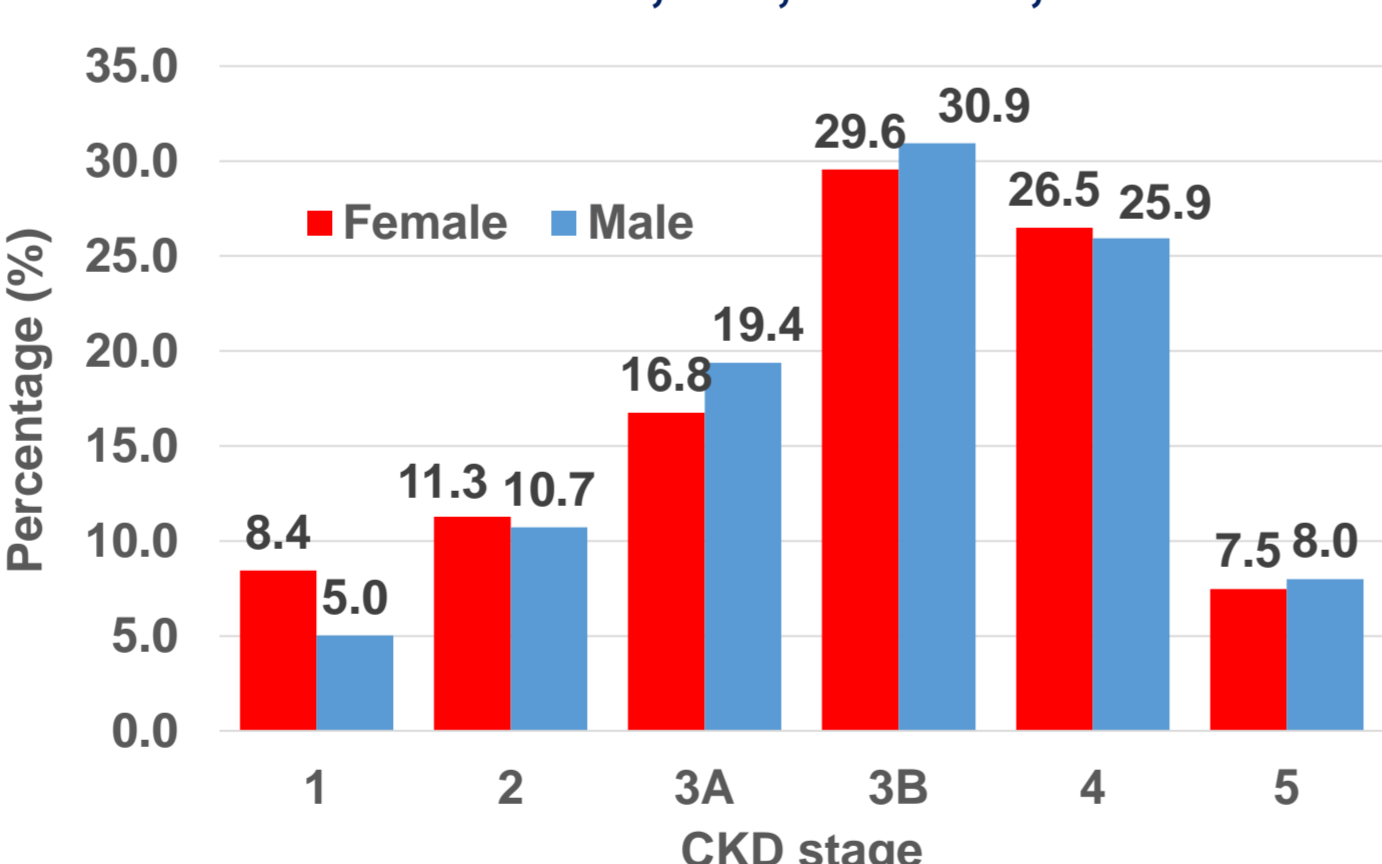


Fig 2b: Stage distribution by gender.
Female=2,703; Male=3,200



- Figs 3a, 3b & 3c** show the primary renal diagnoses in "All" and by gender.

Fig 3a:
Primary renal diagnosis
ALL N=5,773

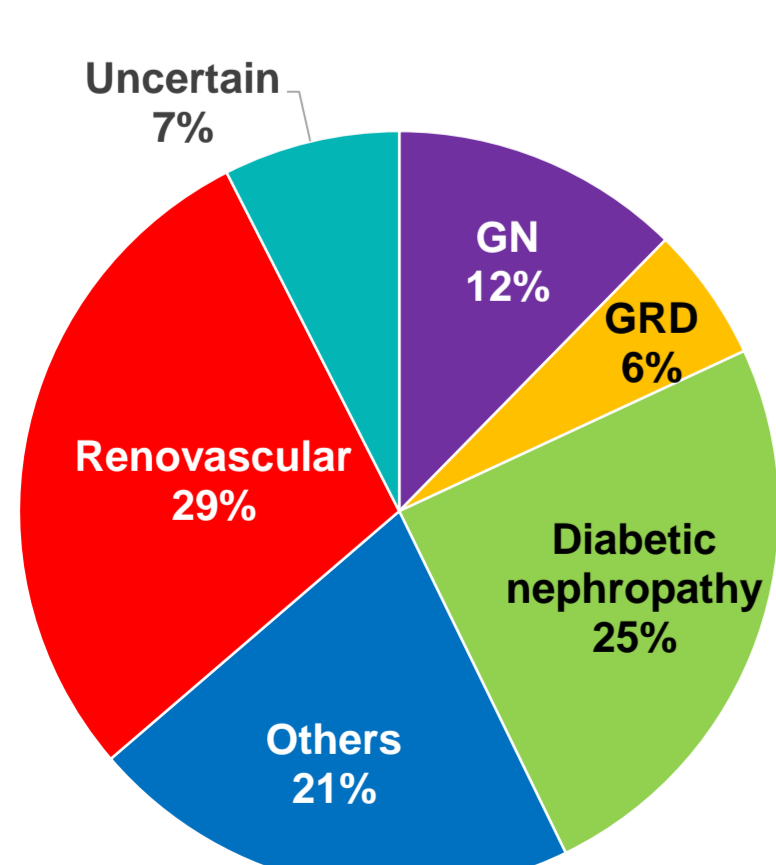


Fig 3b:
Primary renal diagnosis
Female N=2,653

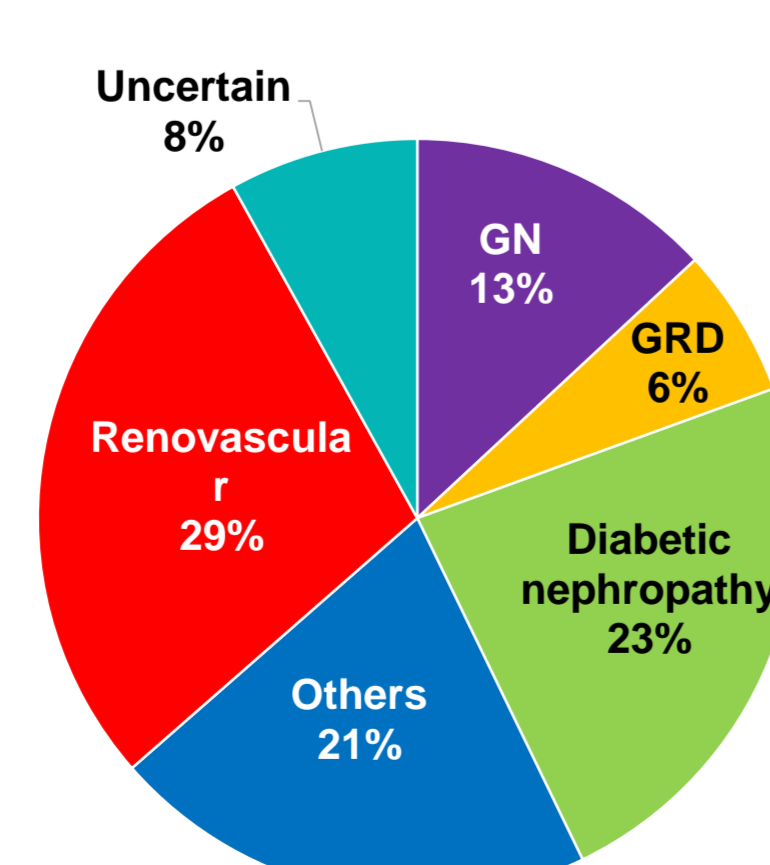
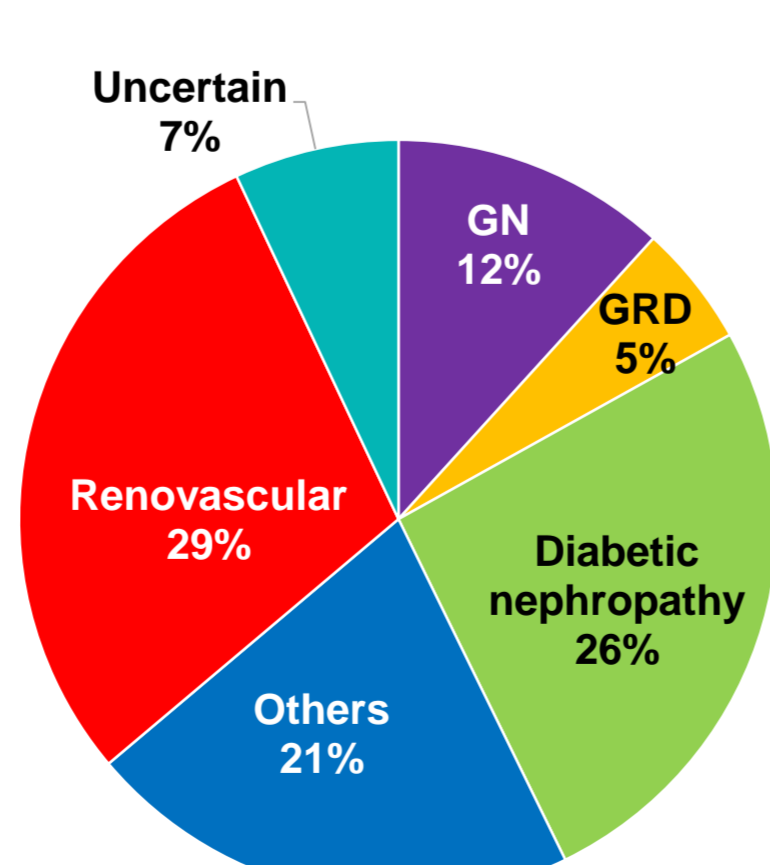


Fig 3c:
Primary renal diagnosis
Male N=3,120



- Figs 4a & 4b** show the proportions of people living in different IRSD quintiles, aggregate and by gender. Only 10.4% of people were living in the least disadvantaged postal areas, with 22.5% living in the most disadvantaged.

Fig 4a: Proportions of people living in IRSD quintiles (ALL, N=4,726)

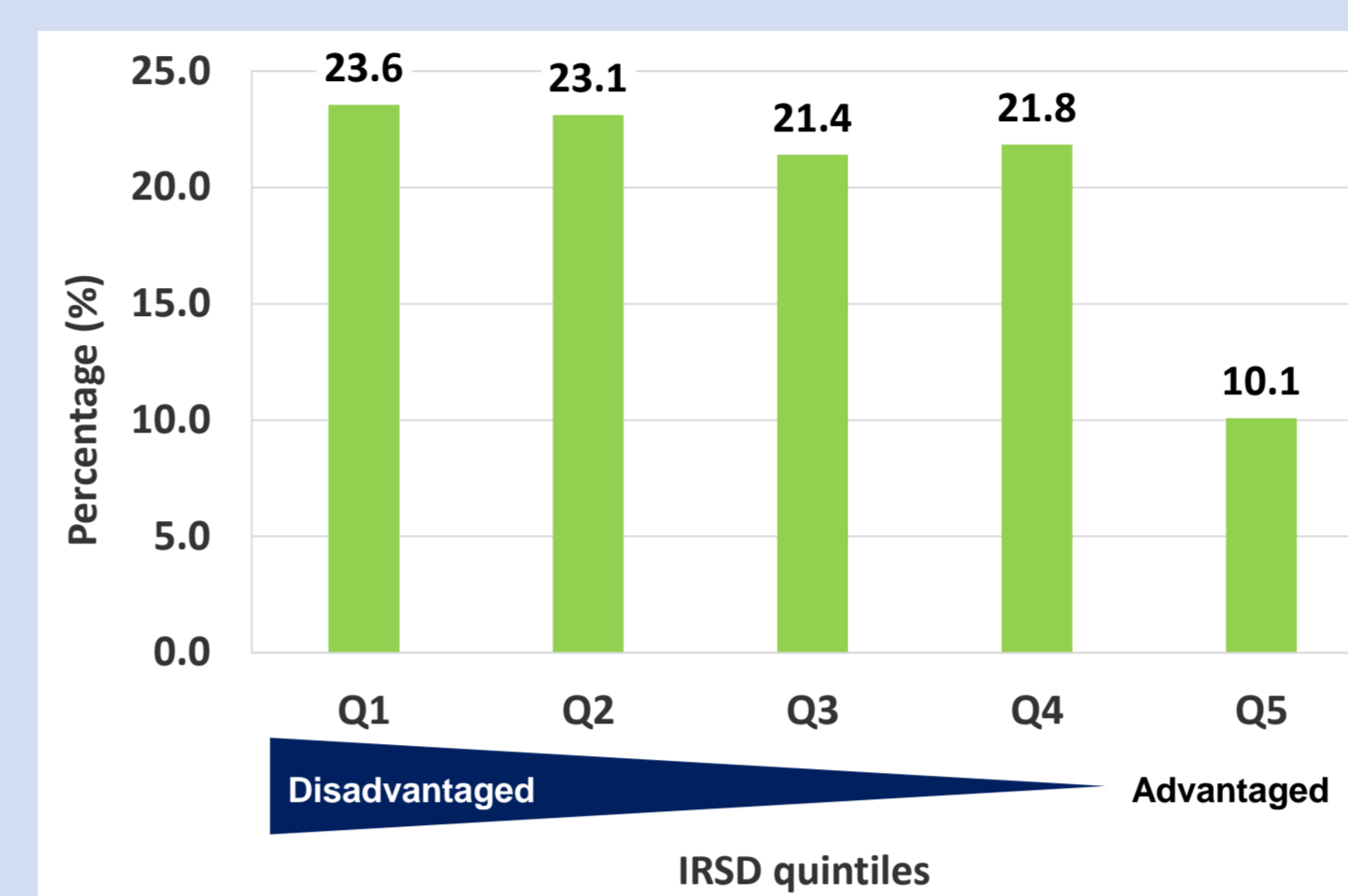
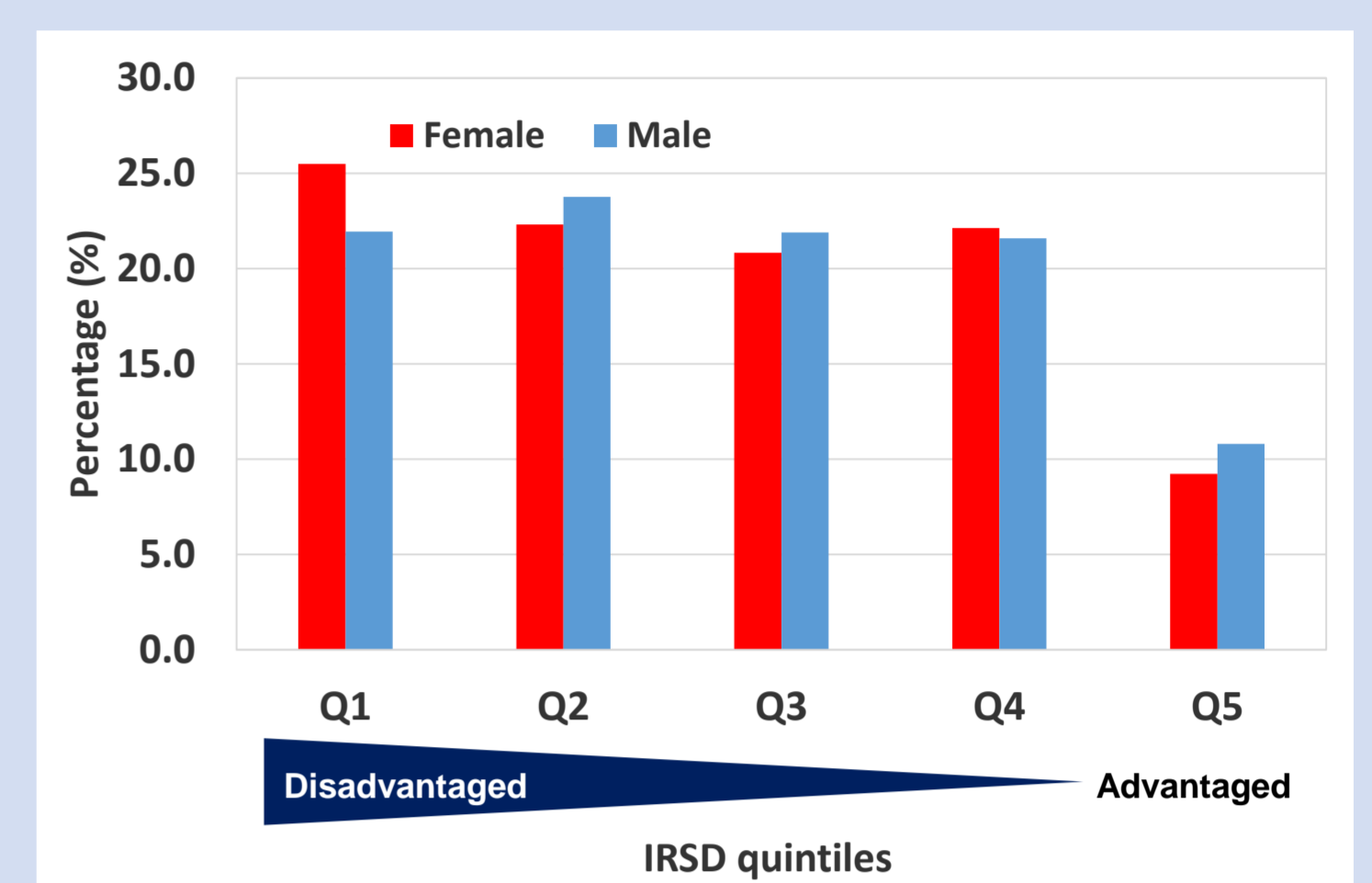


Fig 4b: Percentage of people living in IRSD quintiles by gender (Female=2,146; Male=2,580)



- Figs 5a & 5b** show the IRSD quintile distribution by patients aged ≥ 75 years and by a female gender.

Fig 5a: The percentage (%) of patients aged ≥ 75 yrs by IRSD quintiles (ALL, N=4,726)

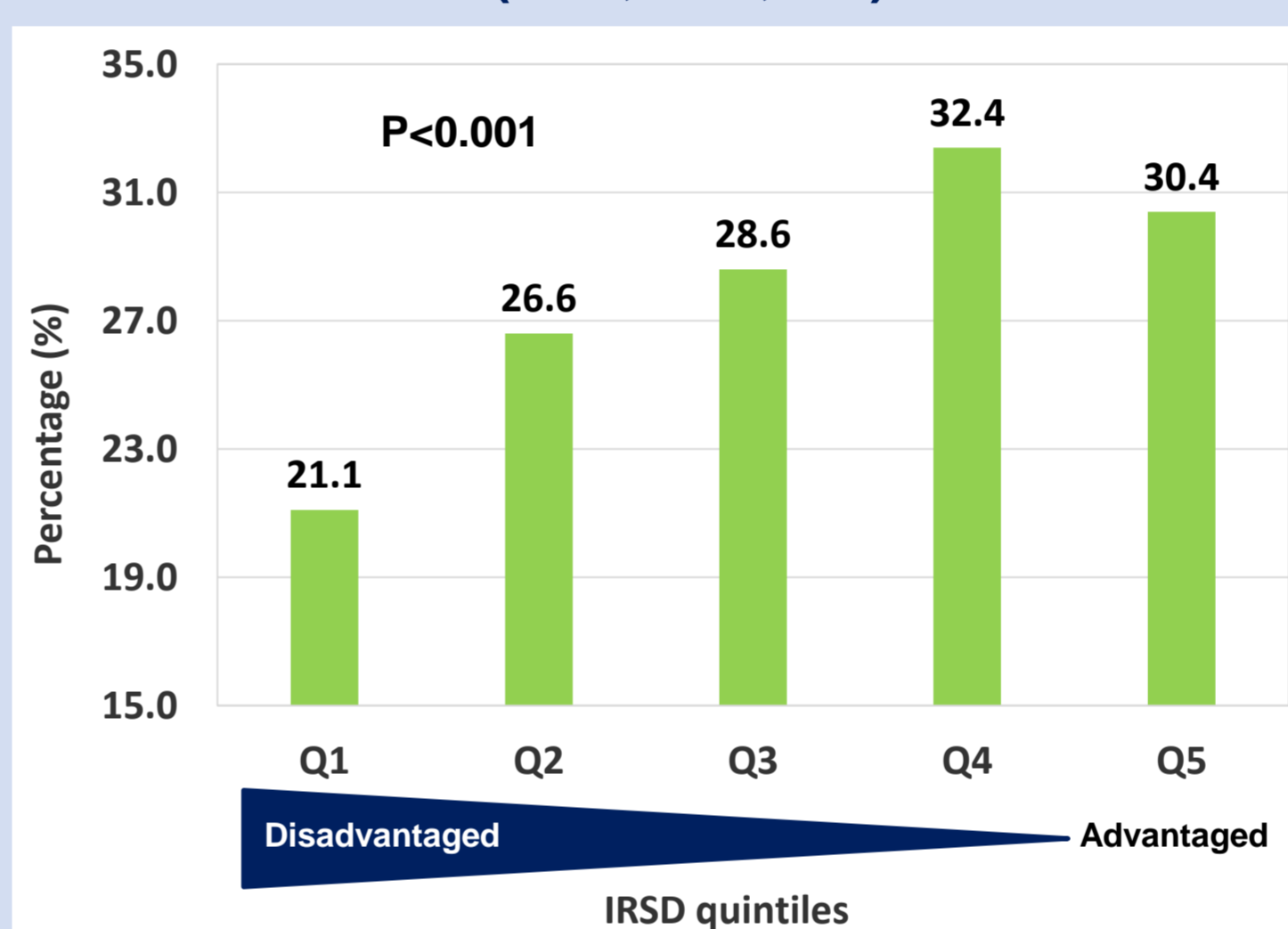
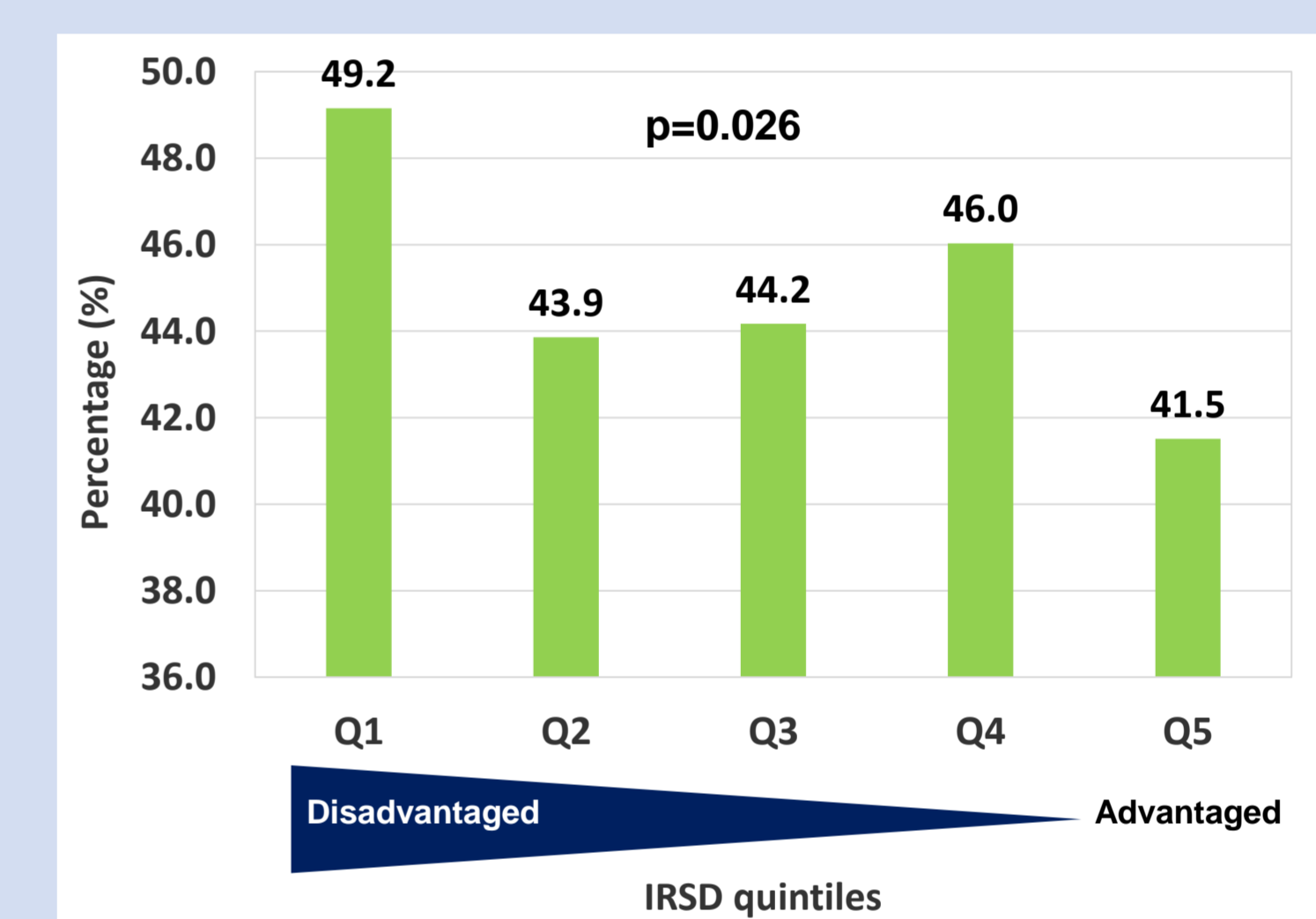


Fig 5b: Percentage (%) of Females by IRSD quintiles (N=2,146)



- Figs 6a & 6b** show the relationship between a primary renal diagnosis of diabetic nephropathy or renovascular disease and IRSD quintiles.

Fig 6a: Percentage (%) of diabetic nephropathy by IRSD quintiles (N=1,426)

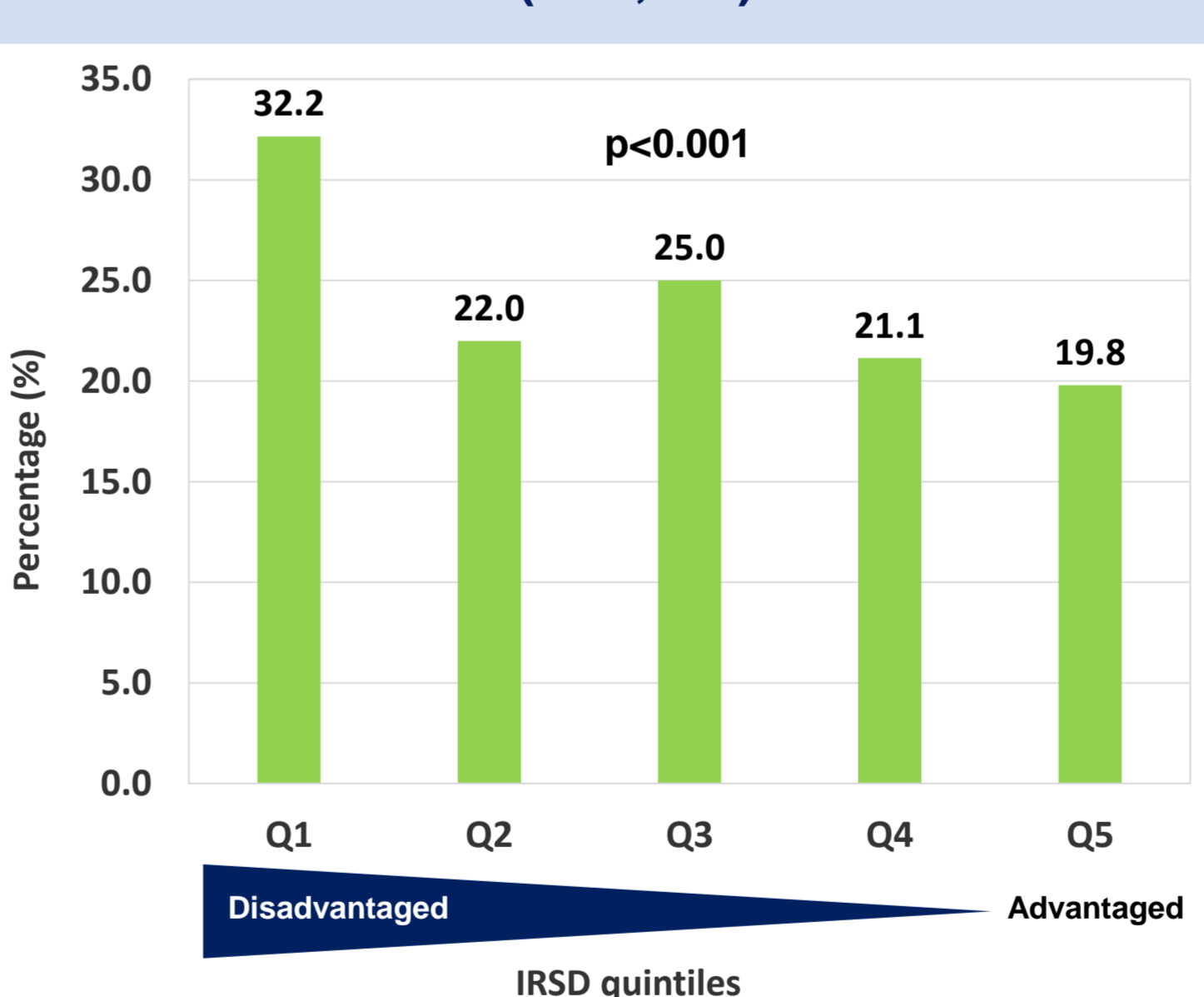
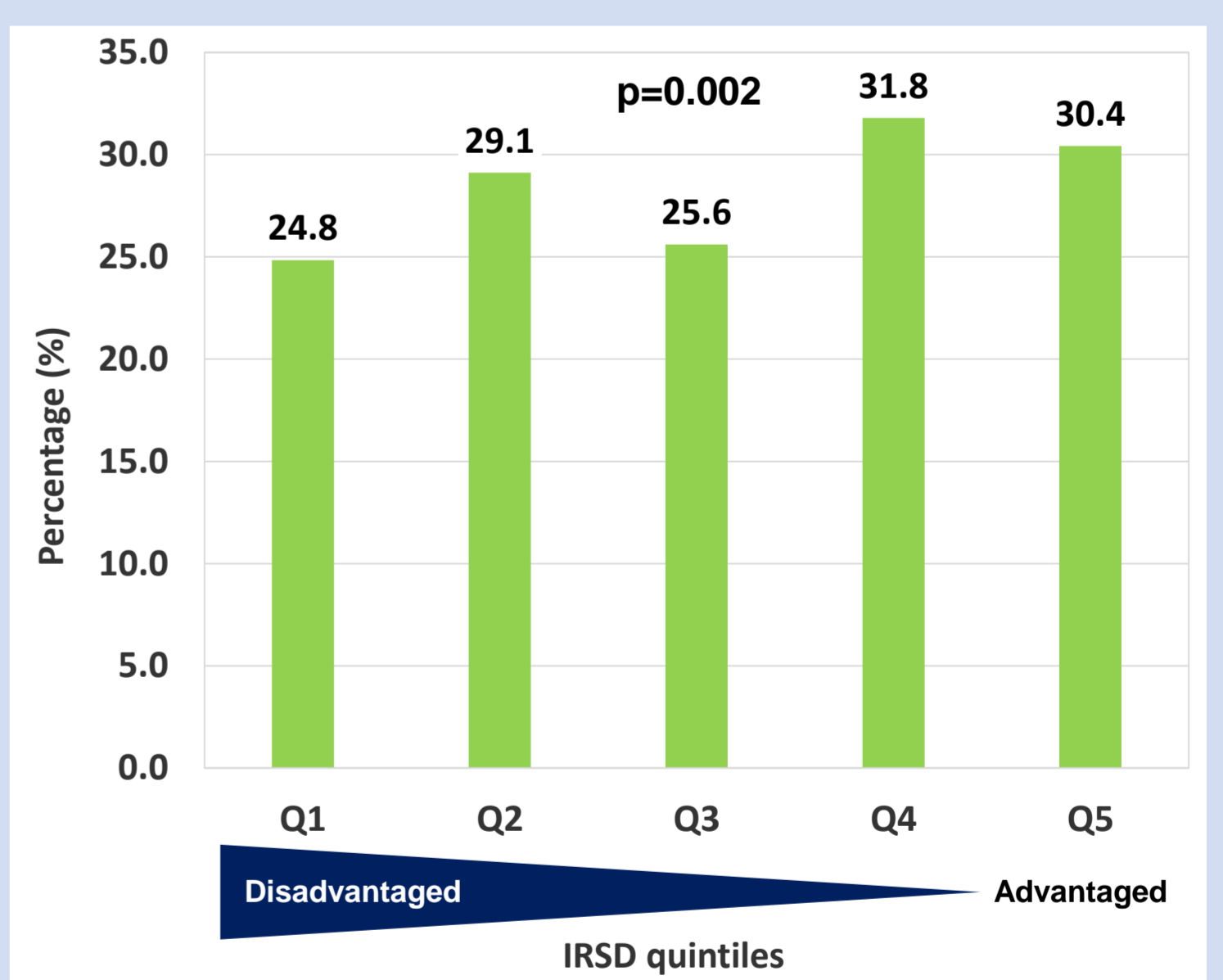


Fig 6b: Percentage (%) of renovascular disease by IRSD quintiles (N=1,662)



- In addition, percentages of CKD stage 3A+ across the lowest quintile, low, middle, high and the highest quintile were 81.9%, 85.5%, 82.1%, 80.6% and 78.5%, respectively ($p=0.006$)

Conclusions

CKD patients recruited from the least disadvantaged areas were less likely to be at advanced stage of CKD and to have diabetic nephropathy, while those from the most disadvantaged areas were likely to be younger, female, and to have diabetic nephropathy, but were less likely to have renovascular disease.

Reference

- Australian Bureau of Statistics 2013, *Socio-economic Indexes for Areas (SEIFA), 2011*, 'Table 3: Postal Area (POA) index of Relative Socio-economic Disadvantaged Index', date cube: Excel spreadsheet, cat.no. 2033.0.55.001, viewed 4 February 2016, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/2033.0.55.0012011?OpenDocument>

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