

Growth Screening in children aged three to five years seen in Community Paediatrics in Dreux District, France. Preliminary results

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Background

Over 90% children grow normally, and attain final height within their genetic target. Up to 10% of all children do not spontaneously catch-up by the age 3 years, besides some cases of TS are diagnosed late, and others with SGA go undiagnosed and unattended.

Objectives

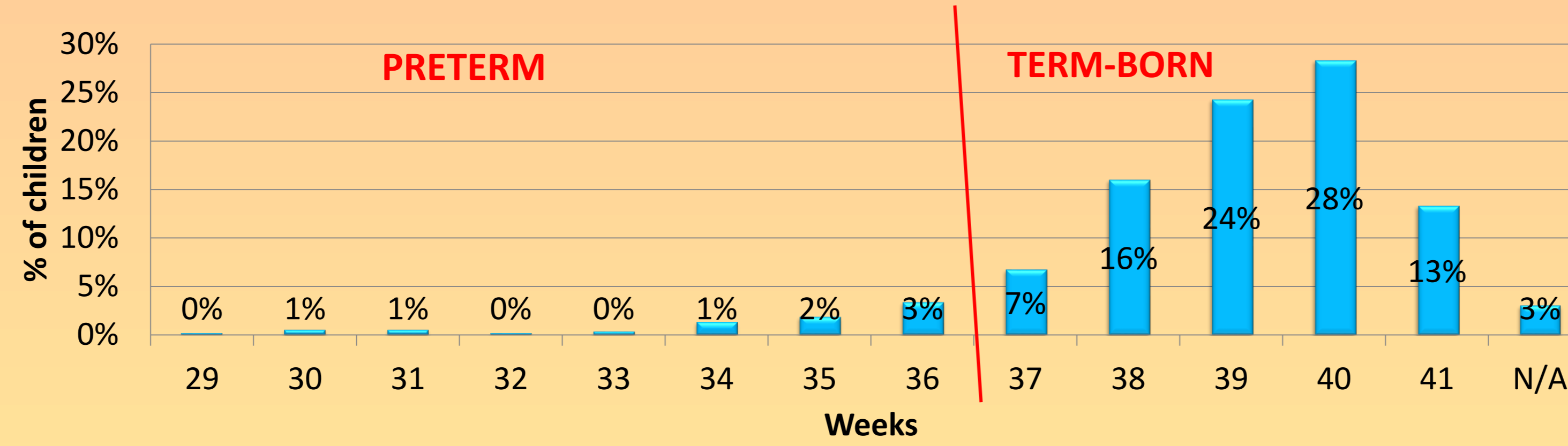
Early screening of growth patterns in children attending Child Protection Visits (PMI, France) in Dreux district. Our objective was the evaluation of prevalence of growth retardation in preschool aged children.

Methods

Standard measures of weight, height and BMI were collected for all children aged 3-5 years during systematic PMI visits. Birth variables, family history of short stature, maternal smoking, ethnic origin, etc. were also recorded. Each child was measured twice (wall stadiometer), and mean height recorded. Parents of those with height < -2.0 SDS received information and written proposal to attend hospital growth visit. Pubertal stage was recorded according to Tanner staging.

Results

| SEX | Number of children |
|--------------|--------------------|
| M | 301 |
| F | 289 |
| NA | 3 |
| Total | 593 |



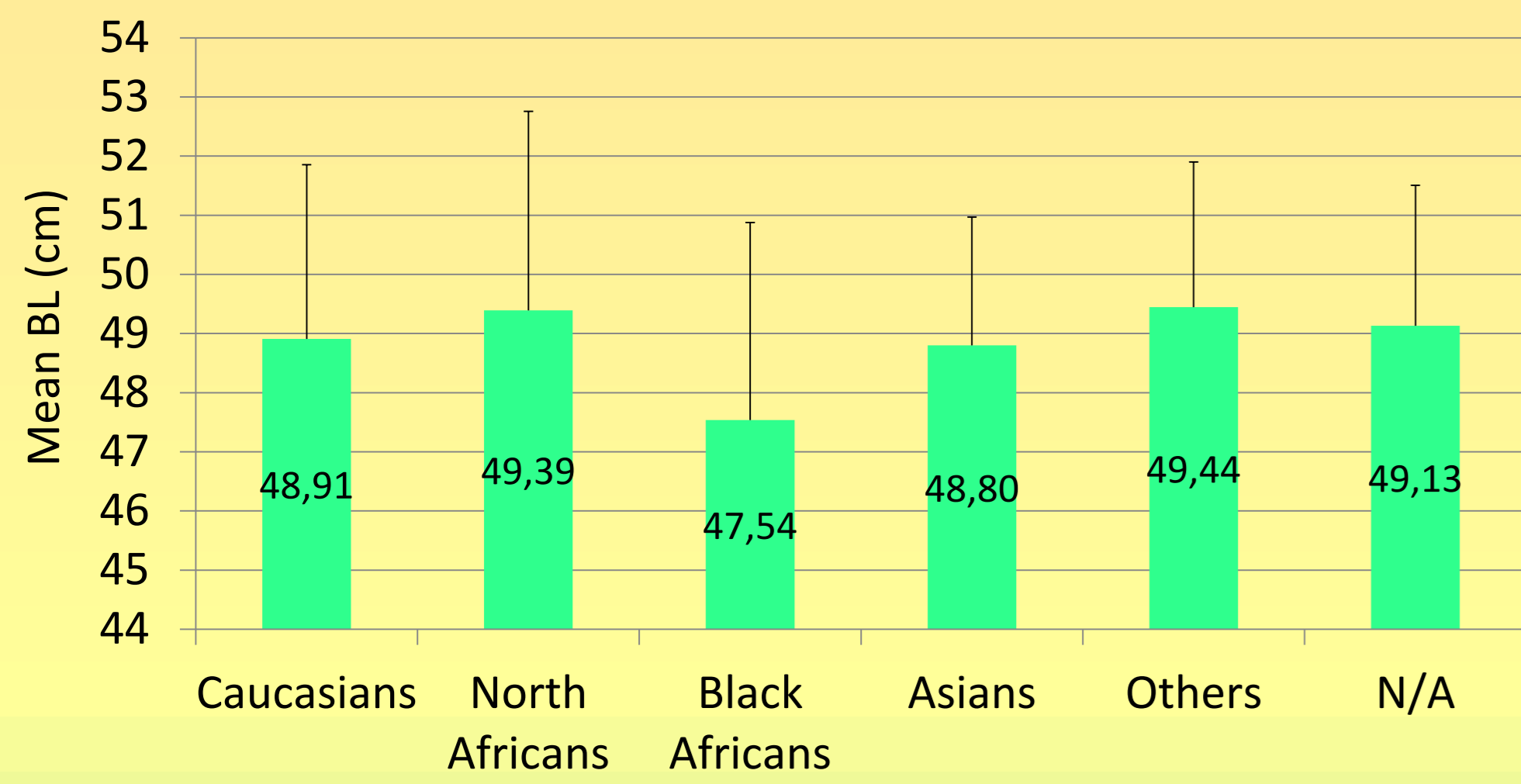
| Ethnic origin | Number of children | % |
|----------------------|--------------------|-------------|
| Caucasian | 284 | 48% |
| North African | 81 | 13,7% |
| Black African | 15 | 2,5% |
| Asian | 5 | 0,8% |
| Other | 9 | 1,5% |
| NA | 199 | 33,6% |
| Total général | 593 | 100% |

590 children were screened from 2013 to 2015 (301 boys, 289 girls)

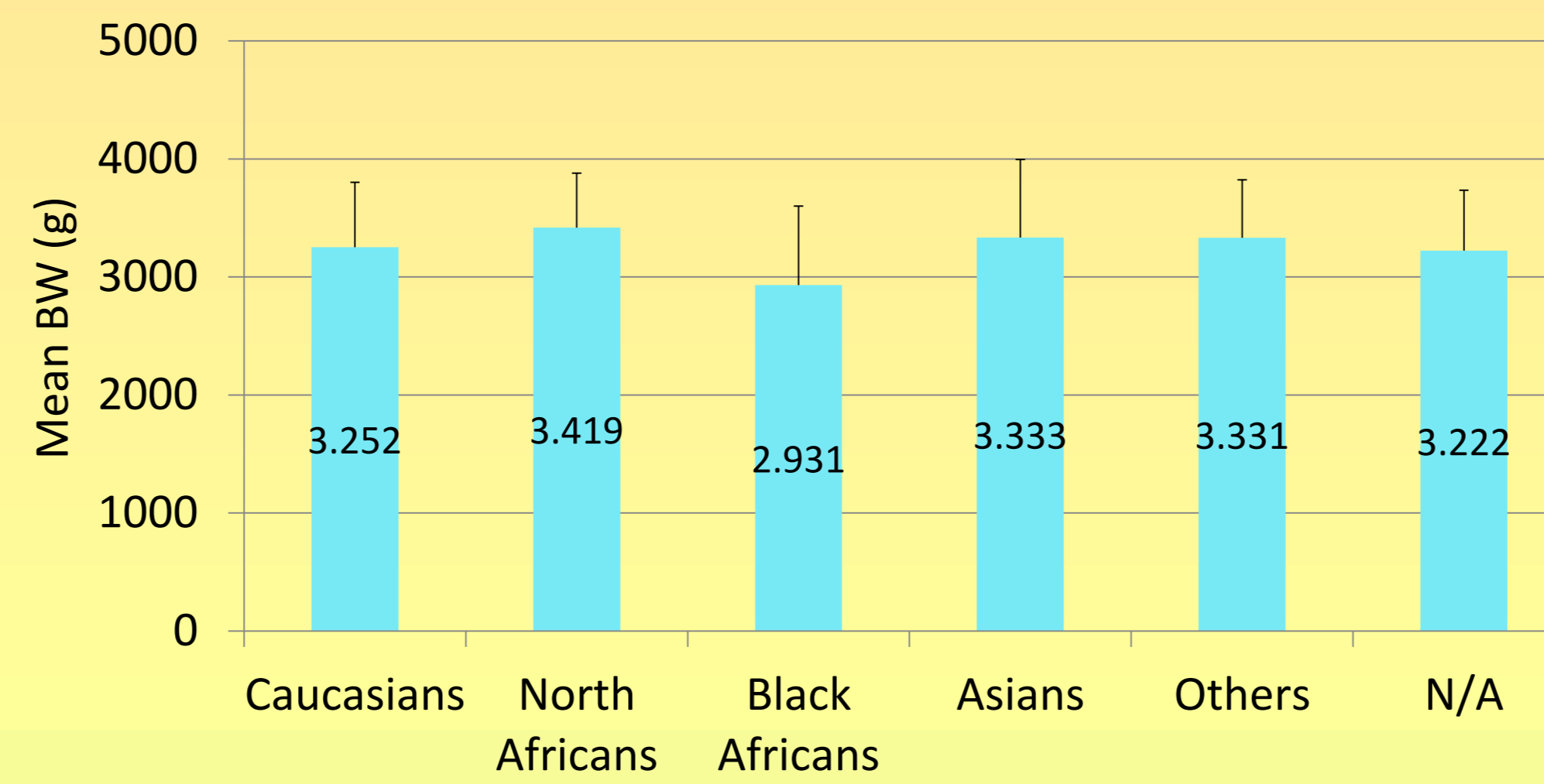
526/575 (91.5%) children were term-born, 8.5% (49/575) were preterm

48% were Caucasians, 13.7% North Africans, 2.5% black Africans, 0.8% Asians

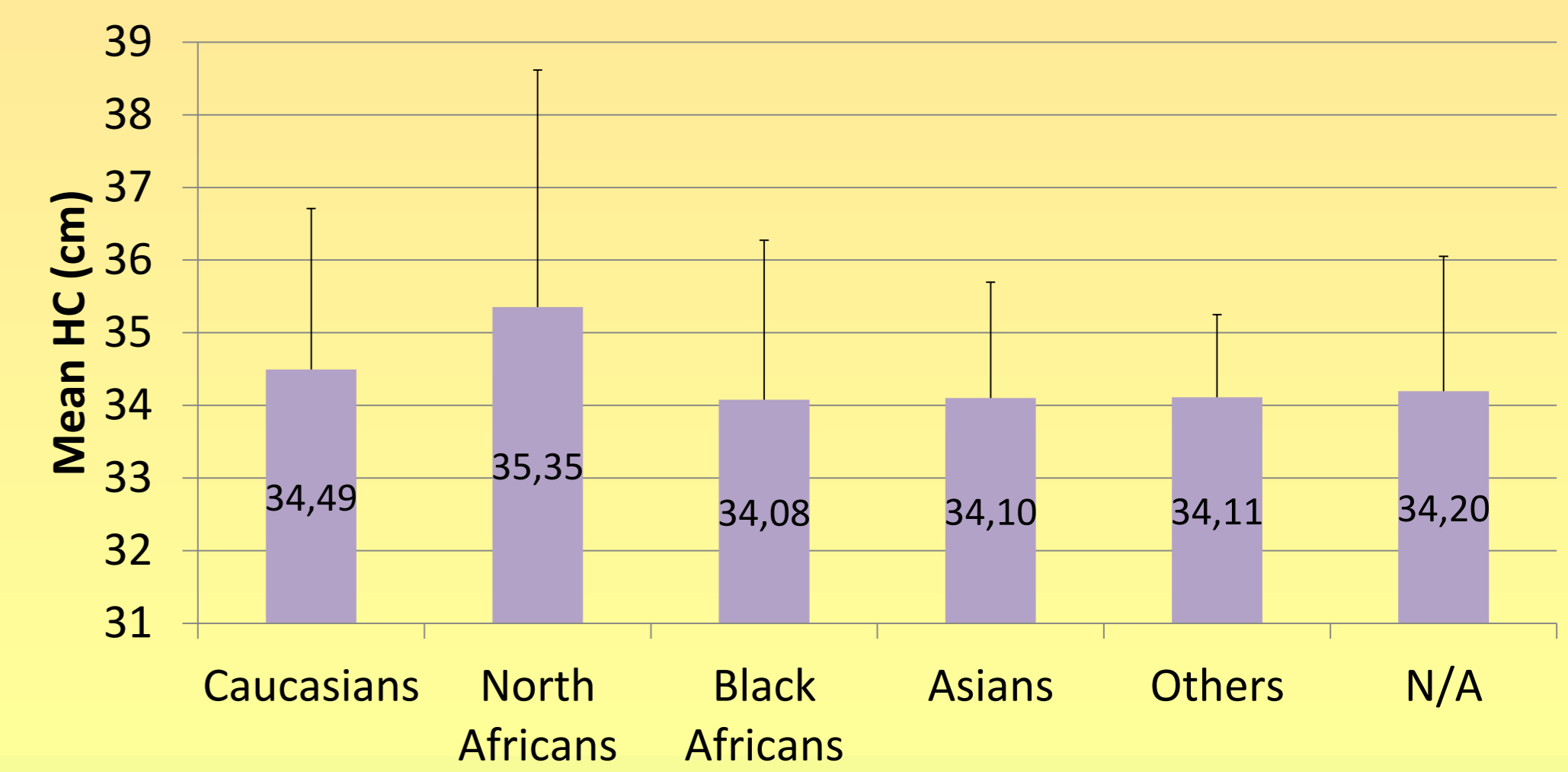
Mean Body length at birth
49,03 ± 0,71 cm



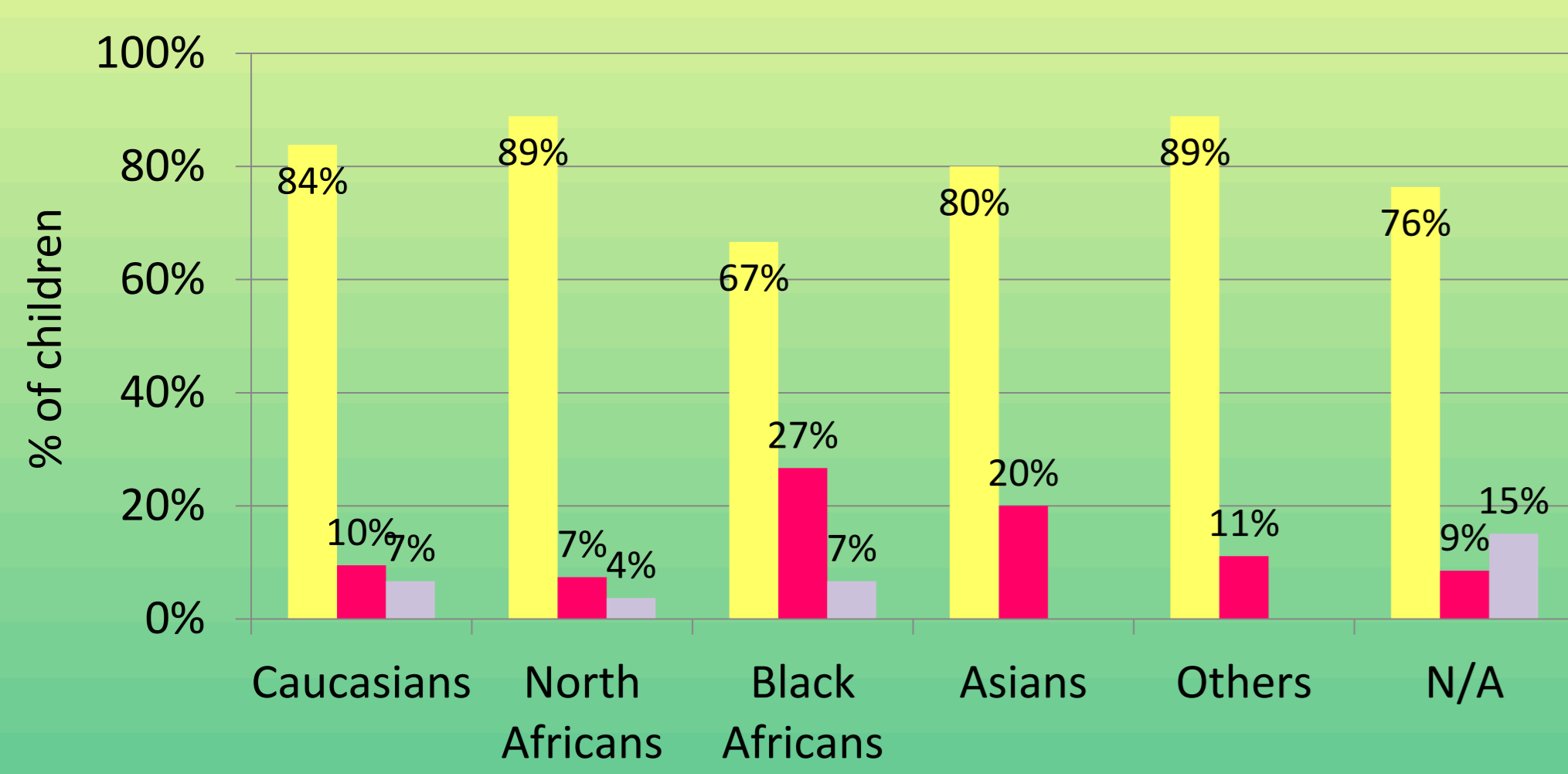
Mean Body Weight at birth
3258,7 ± 205,1 g



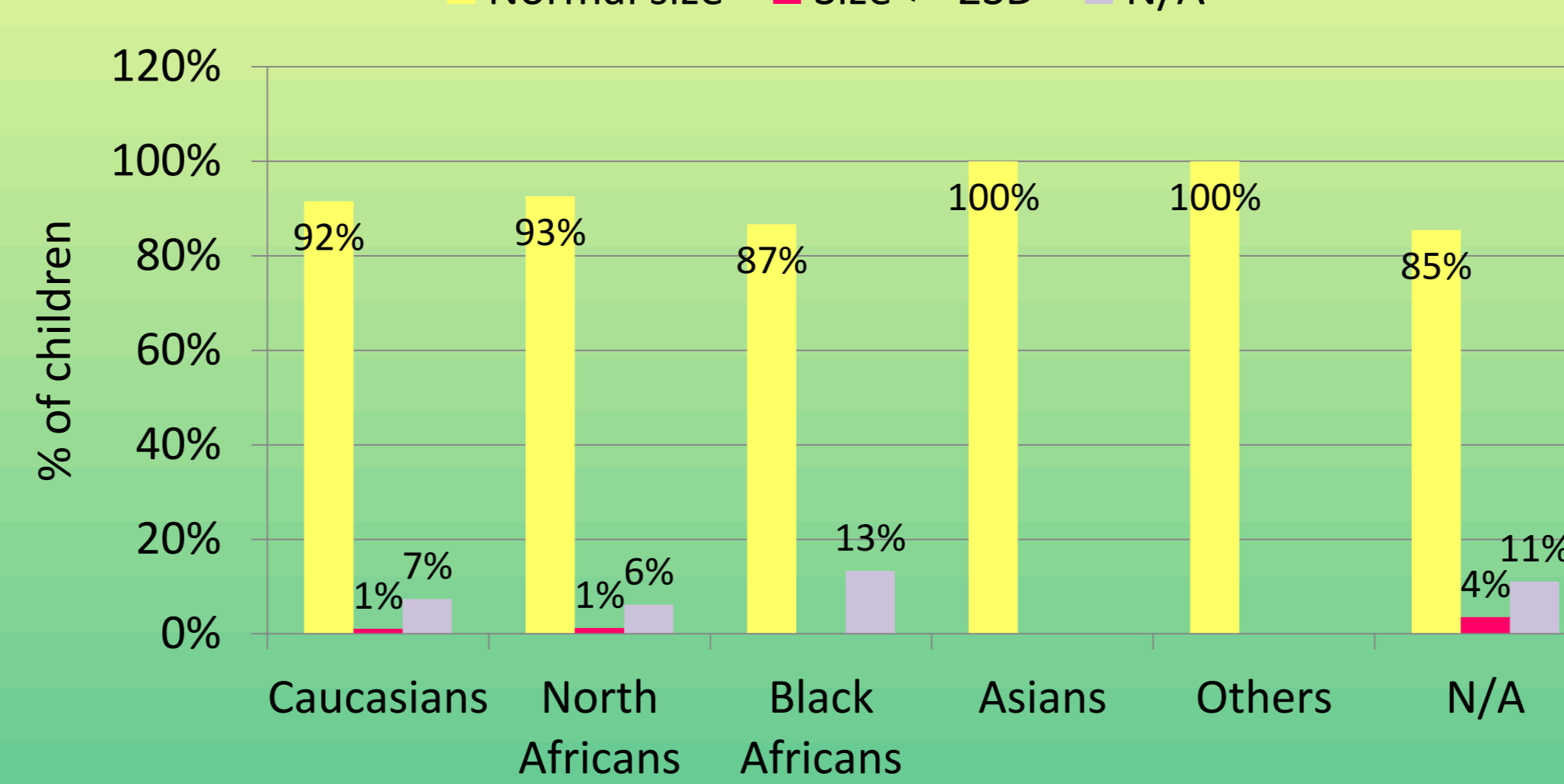
Mean Head Circumference at birth
34,49 ± 0,71 cm



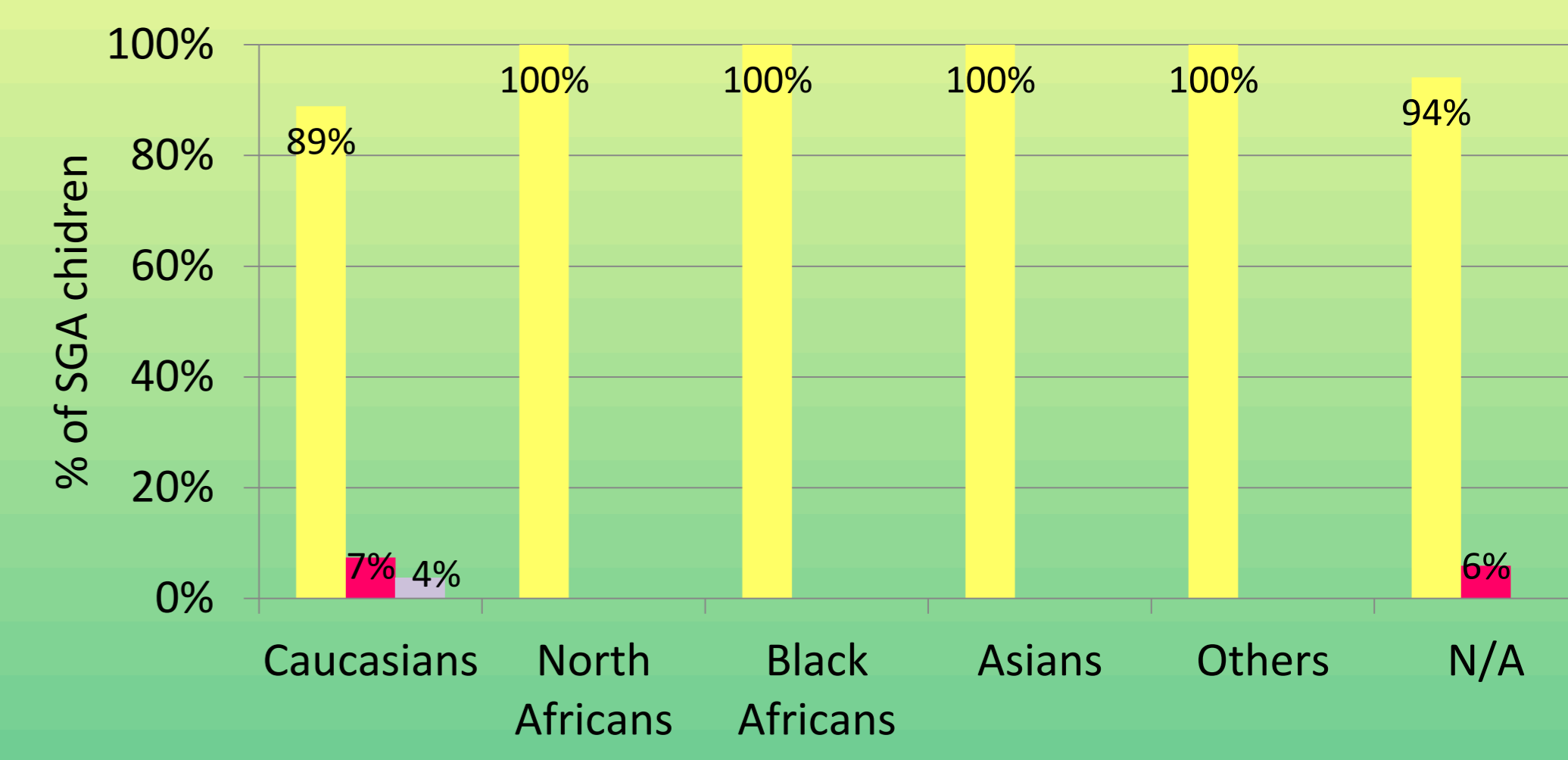
Stature at birth
AGA SGA N/A



Stature at age 5 years
Normal size Size<=-2SD N/A

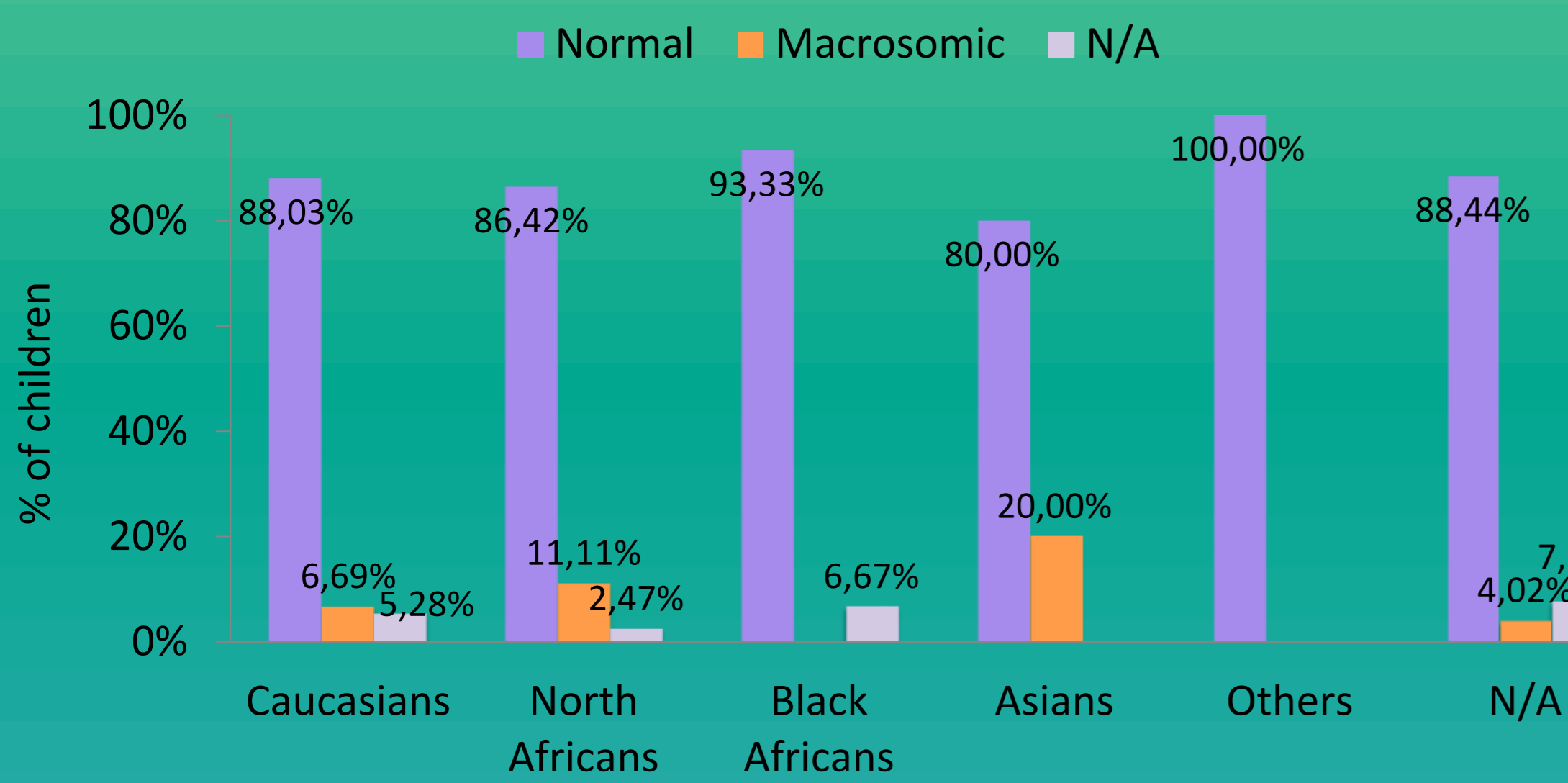


Stature of SGA children at age 5 years
Normal size Size<=-2SD N/A



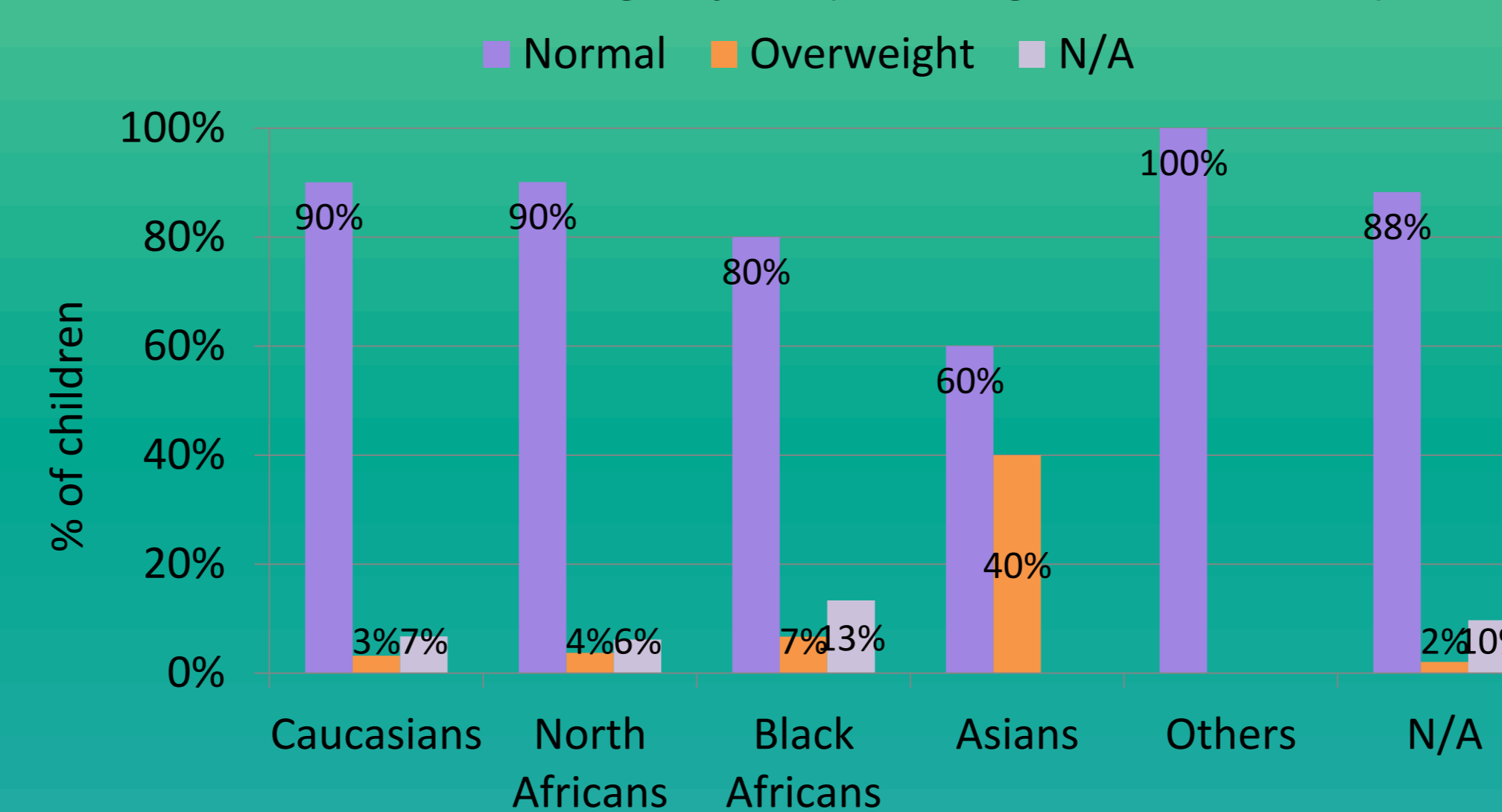
89.6% (484/540) children were AGA and 10.4% (56/540) were SGA (Usher & McLean curves)

Ponderal status at birth (Macrosomia : z score >=2SD)
Normal Macrosomic N/A



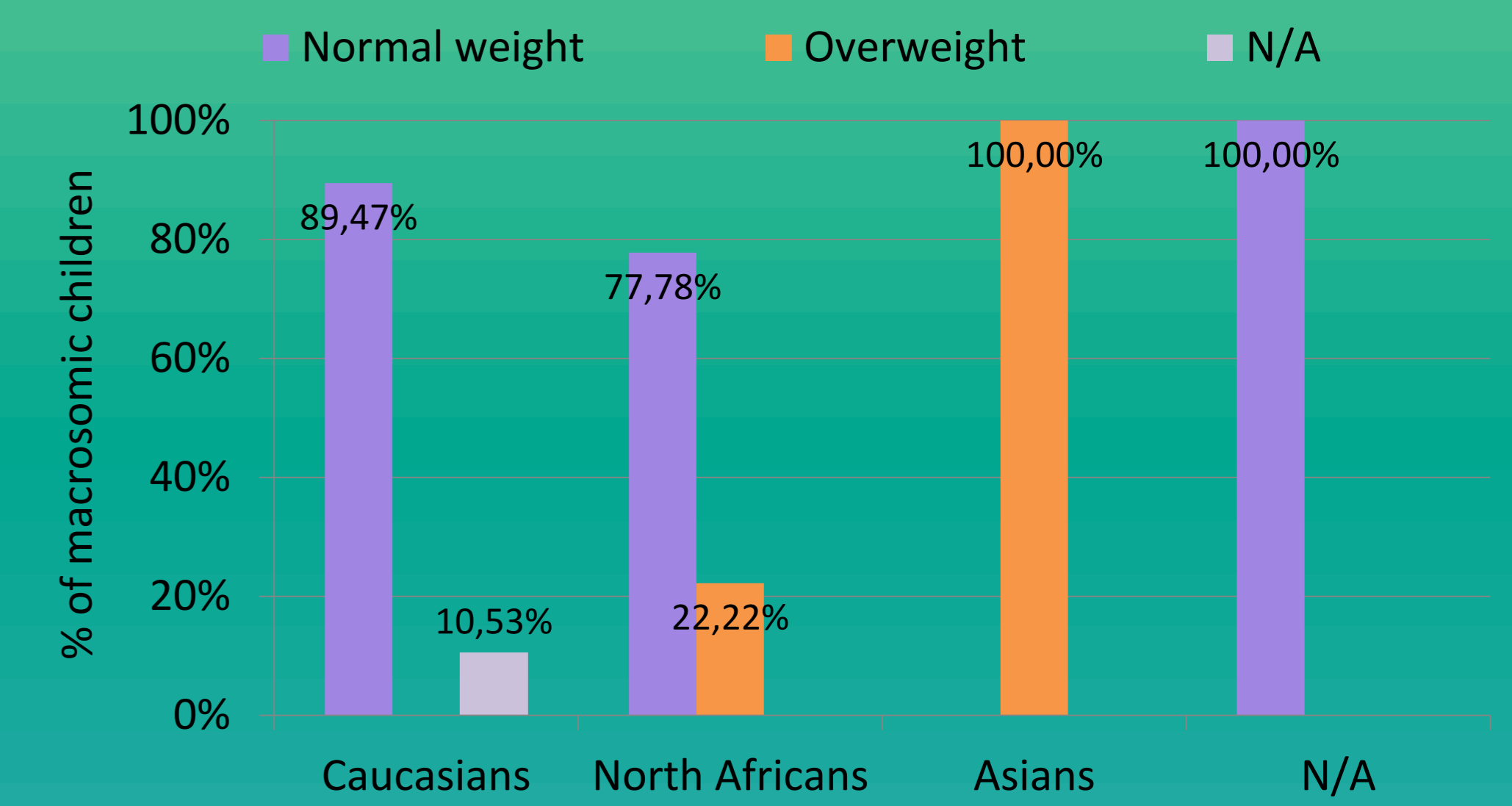
11% infants of north African descent were macrosomic

Ponderal status at age 5 years (Overweight : z score >=2SD)
Normal Overweight N/A



Catch-up growth was complete in 98% children, whereas 2% (11/540) were short at age 5 years. 8/11 (73%) children attended our growth clinics (7 short stature and 1 obesity with micropenis), 2 are GH treated

Ponderal status of the macrosomic children at age 5 years
Normal weight Overweight N/A



Conclusion

These preliminary results show that growth screening in community is important as it enables both early diagnosis and follow-up in children with growth problems. Our results probably underestimate the true prevalence of short stature as results are partial at this point.

REFERENCES / BIBLIOGRAPHY

BMJ 1992;305:1400-2 ; ARCH DIS CHILD 1994;70:354 ; BMC 2007;7:77 ; ARCH DIS CHILD 2008;93:212-217 ; ENDOC REV 2007;28:219-251 ; PAEDIATR ENDOC REV 2006;3:365-378,

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