



The burden of malaria in primi- and secundigravidae in Boromo Health District/Burkina Faso

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Background

- Innovative approaches to deliver IPTp to pregnant women (DELIMAL)
- Educational campaign specifically targeted to pregnant women
- Health Centre randomized, community based study with 3 study arms (Start: April 2004)
- Follow-up of all first and second pregnancies (Tot.pop. ~75.000)

Methods

- Monthly identification of pregnant women (all parities) by trained women field assistants
- Enrolment of G1 and G2; estimation of gestational age by fundal height
- Finger prick blood sampling:
 - Health Centre
 - First antenatal visit (Thick film)
 - Delivery (Thick film, PCV, placental smear)
 - Community
 - Around 32 weeks gestation (Thick film, PCV)
 - Home delivery (Thick film, PCV, placental smear)



Preliminary Results

472 women delivered before 01/11/2004

		≤ June	July-Aug	Sept-Oct	<i>Total</i>
ANC1	Bl.film	158	72	13	243
32 weeks	Bl.film	110	152	68	330
	PCV	106	149	65	320
Delivery	Bl.film	69	120	191	380
	PCV	56	115	192	363
	Pl.smear	49	87	126	262

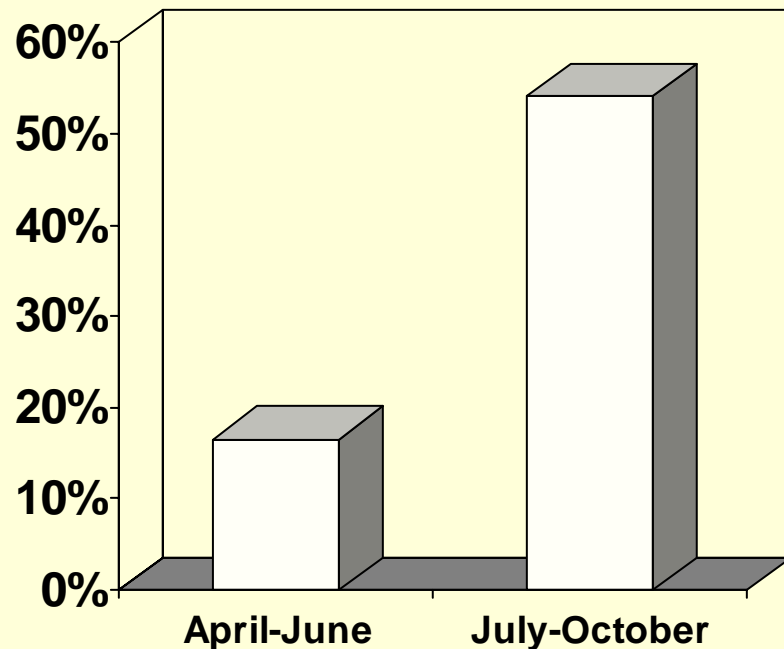


General characteristics (n=472)

Median age (range)	19 years	(14-37)
Adolescents (< 20)	259	(54.9 %)
Primigravidae	266	(56.4 %)
Married	459	(97.3 %)
School	123	(26.1 %)
Owens bednet	102	(21.7 %)
Slept under bednet	37	(8.7 %)
Health Centre delivery	291	(61.7 %)

First ANC visit

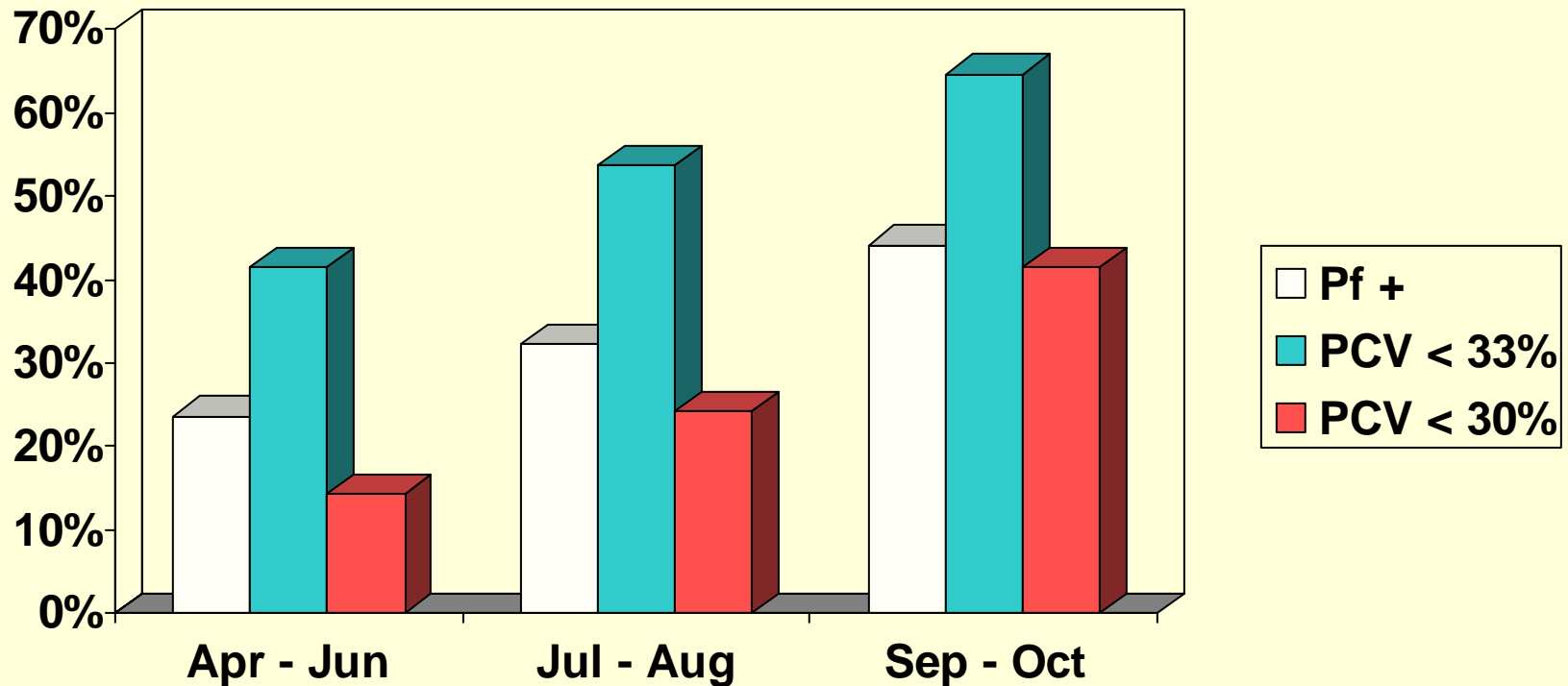
Prevalence of malarial infection



- 30% (72/243) positive at ANC1
- 16.5% (26/158) positive before July
- 54.1% (46/85) positive July-October
- 85.7% (405/472) had attended ANC at least once during pregnancy

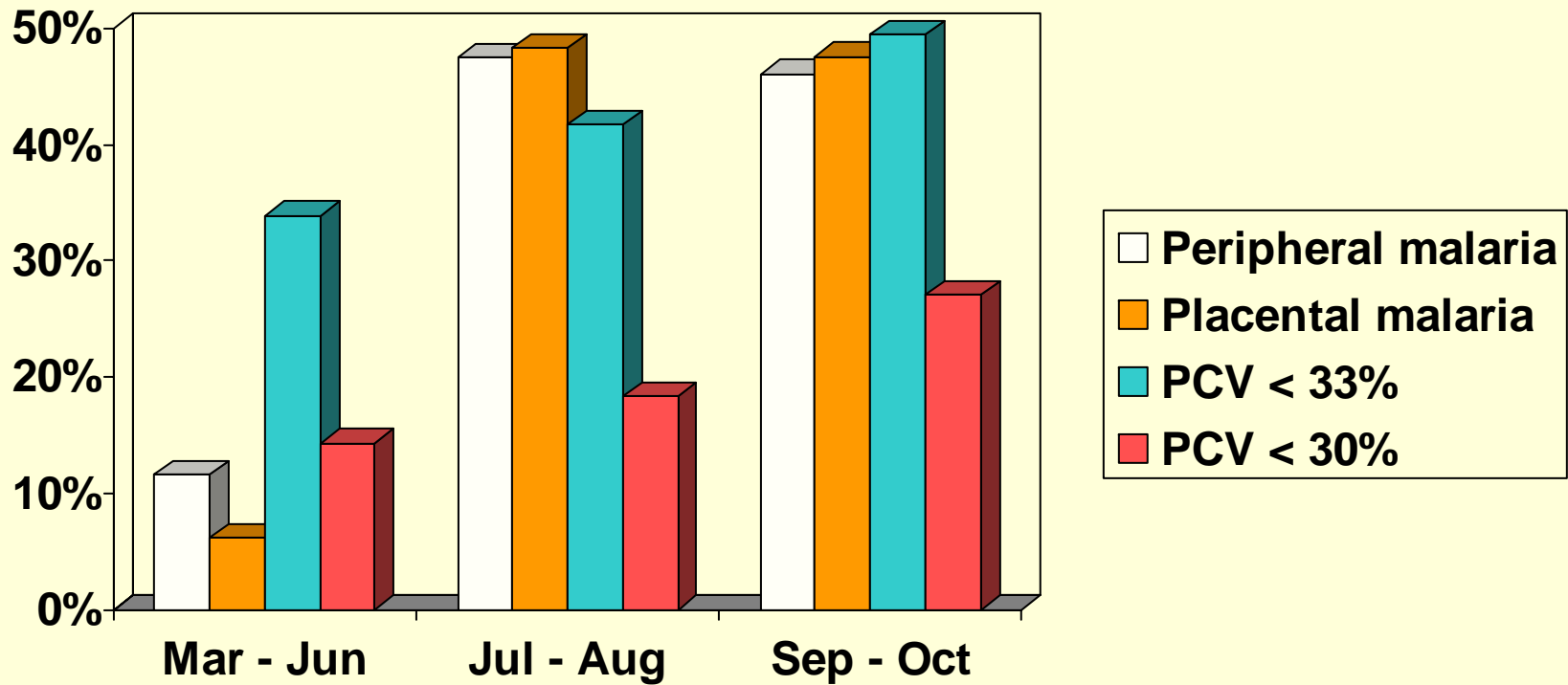
32 weeks gestation

Prevalence of malarial infection and anaemia



Delivery

Prevalence of malarial infection and anaemia



Birthweight (n=290)



	Mean BW (SD)	% LBW
Primigravidae	2650 g (508)	31.3 (52/166)
Secundigravidae	2870 g (455)	16.9 (21/124)
p-value	0.0002	0.005

Conclusions

- Malaria represents a huge burden for primi- and secundigravidae in this area
- Despite good antenatal coverage prevalence of peripheral and placental malaria infection can be up to 50% at delivery
- Prevalence of anaemia is high and severity increases during the rainy season
- Mean birthweight is lower and proportion of LBW is significantly higher in primi- as compared to secundigravidae

