OVERWHELMING MALARIA PREVALENCE IN CAMEROONIAN
SCHOOLCHILDREN

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Introduction
Malaria is still the main children killer in sub-Saharan countries in 2010 despite numerous
efforts to tackle the disease (1). The implementation of control programs including
distribution of ITNs to pregnant women and delivery of IPT has widely been adopted in
endemic regions (2). Fetching parasitological data is crucial for any control strategy (3) and
this has become easier with the use of battery-operated fluorescence microscope on the field.
Nevertheless, school children who constitute one of the main targets are not yet focused
enough for malaria control interventions.

Objectives
To conduct a cross-sectional survey to assess the prevalence of malaria in schools of semi-
urban and rural areas in south-west Cameroon (in order to propose integrated control
measures).

Methodology
542 primary schoolchildren in rural and relatively urbanized areas aged 6 to 14 years were
visited in their schools by researcher’s team in April 2010. The inclusion criterion was the
handing over of an informed consent form signed by parent/legal guardian. Demographic and
Clinical data were recorded and the axial temperature was then measured. Blood was
collected from the children by pricking the finger. Parasitaemia was assessed using a CyScope® fluorescence microscope (Partec, Görlitz, Germany) using a high power Royal Blue Light Emitting Diode (LED) for incidence fluorescence excitation and a white light LED for transmitted light. The CyScope® was operated with a built-in rechargeable battery.

Results
Prevalence of malaria in the schoolchildren with parent’s informed consent (PIC)

Overall prevalence of malaria in the schools

<table>
<thead>
<tr>
<th>School</th>
<th>Total number of Children in school</th>
<th>Children with PIC</th>
<th>Rate of adhesion (%)</th>
<th>Positive cases</th>
<th>Malaria Prevalence %</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPS Group I MOLYKO / BUEA</td>
<td>259</td>
<td>110</td>
<td>42.5 %</td>
<td>39</td>
<td>32.5 %</td>
</tr>
<tr>
<td>GPS Group II MOLYKO / BUEA</td>
<td>235</td>
<td>80</td>
<td>34.04 %</td>
<td>21</td>
<td>26.25 %</td>
</tr>
<tr>
<td>CATHOLIC SCHOOL MUEA</td>
<td>445</td>
<td>183</td>
<td>41.12 %</td>
<td>99</td>
<td>54.1 %</td>
</tr>
<tr>
<td>GS BOMAKA / BUEA</td>
<td>428</td>
<td>169</td>
<td>39.5 %</td>
<td>154</td>
<td>91.12 %</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1367</strong></td>
<td><strong>542</strong></td>
<td><strong>39.65 %</strong></td>
<td><strong>313</strong></td>
<td><strong>56.7 %</strong></td>
</tr>
</tbody>
</table>

Morbidity was assessed before and after blood sampling. Prostration, fever, headache, abdominal pains were the most common symptoms for children with high parasitaemia.
Discussion
Our study has shown that malaria prevalence remains extremely high in the schools of the semi-urban and rural areas of the Buea Health district. The low adhesion rate may be due to ignorance on the part of many parents as some of them do link the collection of their children’s blood to witchcraft. The results can be biased by the fact that parents who accept to participate may have more frequent malaria in their family.

Conclusion
Sensitisation has to be intensely conducted and malaria screening encouraged in schools.

References
1 – WHO 2008. New report finds more funding leading to increased coverage of malaria control interventions WHO report, 18 September 2008

2 - Clive Shiff 2002. Integrated Approach to Malaria Control Clinical Microbiology Reviews, April, p. 278-293, Vol. 15, No. 2