The user fees exemption pilot project in Burkina Faso did not lead to a waste of medicines by health workers

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This note analyzes the evolution of drug prescribing practices in the context of an intervention by the NGO HELP in Burkina Faso that combined fees exemption for children under the age of five years with supervision and continuing education of the prescribing staff. The results showed that health workers’ prescribing practices did not deteriorate once the fees for children were eliminated at the point of service. Supervision and continuing education appeared to be determining factors in maintaining the quality of prescriptions.

LESSONS LEARNED

The intervention combining point-of-service fees exemption for children under the age of five years with supervision and continuing education of staff did not lead to a deterioration in the quality of drug prescriptions.

Continuing education and supervision appeared to be essential factors in maintaining prescribing practices.

INTRODUCTION

Some studies have shown that health workers sometimes tended to use drugs inappropriately in certain African countries where drugs were accessible and available [1]. User fees exemption programs that make drugs free for patients could have a similar effect. Indeed, the health authorities in some countries worry about the potential pernicious effects of these interventions [2]. They have expressed worries that allocated resources could be wasted if prescribing staff do not use drugs rationally [3].

In September 2008, the NGO HELP implemented an intervention in the health and social promotion centres (CSPSs) of the Dori health district. This intervention made drugs free for children under the age of five years and supported the supervision and continuing education of prescribing health workers (nurses). It produced an immediate and steady use of health care services among children under the age of five years [4]. However, there is little data available on the quality of services provided. Thus, the objective of this study was to analyze the effects of the intervention on the quality of drug prescriptions.
METHODOLOGY

This was a longitudinal and retrospective study using interrupted time series over 24 months, that is, one year before and one year after the start of the intervention. In a sample of nine CSPSs, 9,710 prescriptions for children under the age of five years were randomly selected. Only those prescriptions with a single diagnosis of malaria or of acute respiratory infection (ARI)—the most frequent diagnoses in Burkina Faso [5]—were considered. Based on the same principles, we selected 3,349 prescriptions for children between the ages of five and 10 years of age, who were required to pay for services, but who received their prescriptions from the same health workers as the other group. The WHO indicators for prescription quality were used for the analysis [6], as well as statistical models based on multilevel analyses taking into account secular trends.

RESULTS

The intervention did not induce a deviation from WHO quality standards among prescribers

The table shows the evolution in drug prescription indicators compared with WHO standards and the guidelines of the national Diagnostic and Therapeutic Guide (GDT) [7]. Indicators that deviated from the standard before the intervention (use of antibiotics and average number of drugs) continued to do so after the intervention. Moreover, these indicators did not worsen for children under the age of five years. For children who continued to pay for services, the use of antibiotics deviated slightly more from the standard.

These results suggest that the intervention did not lead prescribers to deviate from the WHO quality standards, even when patients were not paying for the drugs.

Table: Comparison with WHO standards before and after the intervention

<table>
<thead>
<tr>
<th>Indicator</th>
<th>WHO Standard</th>
<th>Prescriptions children 0-4 years (n=9,710)</th>
<th>Prescriptions children 5-10 years (n=3,349)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Before intervention</td>
<td>After intervention</td>
</tr>
<tr>
<td>Use of antibiotics (%)</td>
<td>&lt; 50%</td>
<td>54%</td>
<td>53%</td>
</tr>
<tr>
<td>Use of injectables (%)</td>
<td>&lt; 17%</td>
<td>7%</td>
<td>8%</td>
</tr>
<tr>
<td>Average number of drugs</td>
<td>&lt; 2</td>
<td>2.26</td>
<td>2.19</td>
</tr>
</tbody>
</table>

The intervention did not induce prescribers to use antibiotics and injectables inappropriately

When dealing with the children targeted by the intervention, the prescribers improved their method of prescribing by reducing the use of antibiotics by 62% (p < 0.005). In fact, according to the GDT, antibiotic treatment is not required in cases of malaria. Likewise, these prescribers reduced the use of injectables in cases of ARI by 72% (p < 0.005). On the other hand, the prescribers did not change their practices for children from five to 10 years of age, who continued to pay for services.

The intervention did not induce prescribers to prescribe more drugs than before

The figure shows the evolution of the average number of prescription drugs 12 months before and 12 months after the intervention. In both the group of children targeted by the intervention (receiving free drugs) and those not targeted (paying for drugs), the average number of drugs per prescription remained stable at around 2.2. However, in the cases of ARI among children targeted by the intervention there was a
slight drop in this indicator from 2.29 to 2.10. Based on statistical analyses, it was estimated that, in eight prescriptions for children under the age of five years, health workers prescribed one less drug since the intervention ($p < 0.05$).

**Figure**: Evolution in the average number of drugs per prescription

![Graph showing evolution in the average number of drugs per prescription](image)

**CONCLUSION**

This study showed that, despite an increase in the utilization of services, the intervention that combined point-of-service user fees exemption with supervision and continuing education of staff did not induce any inappropriate prescribing practices among health workers. It is highly likely that the supervision and continuing education of staff were key elements in maintaining and improving prescribing practices.

This note and other documents on the financial accessibility of healthcare services in West Africa are available on the websites of the NGO HELP ([www.help-ev.de](http://www.help-ev.de)), the HHA’s “Financing Communities of Practice” ([see http://www.hha-online.org/hso/financing/knowledge](http://www.hha-online.org/hso/financing/knowledge)), and the University of Montreal ([http://www.medsp.umontreal.ca/vesa-tc/ressrc.htm](http://www.medsp.umontreal.ca/vesa-tc/ressrc.htm)).

**References**: