Parental knowledge, opinions and beliefs to Enhanced Program of Immunization vaccines in a reference vaccination center in Abidjan, Côte d’Ivoire

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• Côte d’Ivoire: huge lack of communication on Enhanced Program of Immunization (EPI) vaccines [Nangui, 2009]
• Campaign of communication concern only poliomyelitis eradication
• Information is an important factor of immunization attendance [Baonga, 2012]
• EPI unit is the most attended immunization center in Abidjan area
• **Research question**: what are the knowledge, opinions and beliefs of mothers or accompanying relatives who attend immunization services in EPI Unit?

• ➔ few data on knowledge, opinions and beliefs of mothers and accompanying relatives who accept immunization activities are available

**Main objective**: « Identify parental knowledge, opinions and beliefs on EPI vaccines »
Methods 1/4

- **Study type**: cross-sectional, descriptive
- **Study period**: from June, 20 to July, 31 2016
- **Study site**: EPI Unit located at National Institute of Public Hygiene (NIPH), Abidjan.
Methods 2/4

- **Study site**: National Institute of Public Hygiene (NIPH) is a reference center of immunization in Côte d’Ivoire with four immunization services in 28 regions through the country:
  - International Center of Immunization (ISO 9001 V 2008 certification)
  - EPI Unit+++  
  - Anti-Rabic Center
  - Collectivity Immunization Unit
Methods 3/4

• **Target population**: mothers or accompanying relatives of infants aged from 9 to 11 months who come to the EPI Unit for their children immunization and accept to participate (N= 197)

• **Data collect**: we use a questionnaire to interview mothers or accompanying relatives. Interviews were conducted by two nurses of the EPI unit
Methods 4/4

• Data collected:
  - Sociodemographic characteristics
  - Vaccinal status
  - Knowledge of diseases targeted by EPI vaccines
  - Opinions and beliefs on immunization

• Statistical analyzes: Epi Info version 3.5.4, Chi 2 test (p < 0.05)
Results 1/8

- **Sociodemographic characteristics:**
  - Mothers (78.7%) aged from 30 to 39 years (54.3%) in an occupation (73%)
  - High level of education: 51%
  - Christian: 58%

- **Vaccinal status of children:**
  - Completely immunized: 99% (VS 45% in Côte d’Ivoire)
  - Correctly immunized: 81% (VS 20% in Côte d’Ivoire)
Figure 1: Knowledge of diseases targeted by EPI vaccines
Results 3/8

Figure 2: Knowledge of diseases targeted by EPI vaccines

- Tuberculosis: 55%
- Diphtheria: 19%
- Tetanus: 12%
- Pertussis: 42%
- Polio: 52%
- Hepatitis: 8%
- Haemophilus Pneumonia: 11%
- Measle: 51%
- Yellow fever: 49%
<table>
<thead>
<tr>
<th>Variables</th>
<th>Knowledge of EPI target diseases</th>
<th></th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weak N (%)</td>
<td>Average et Good N (%)</td>
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</tr>
<tr>
<td>Level of education</td>
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<tr>
<td>No/primary</td>
<td>34 (39,1)</td>
<td>6 (5,4)</td>
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<tr>
<td>Secondary</td>
<td>26 (29,9)</td>
<td>30 (27,3)</td>
<td></td>
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<tr>
<td>Superior</td>
<td>27 (31,0)</td>
<td>74 (67,3)</td>
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<td>Profession</td>
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<tr>
<td>Without profession</td>
<td>36 (41,4)</td>
<td>17 (15,5)</td>
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<tr>
<td>With profession</td>
<td>51 (58,6)</td>
<td>93 (84,5)</td>
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<tr>
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<td>34 (39,0)</td>
<td>26 (23,6)</td>
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<td>53 (61,0)</td>
<td>84 (76,4)</td>
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<tr>
<td>Muslim</td>
<td>47 (54,0)</td>
<td>35 (31,8)</td>
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<tr>
<td>Christian</td>
<td>40 (46,0)</td>
<td>75 (68,2)</td>
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</table>
Opinions and beliefs:

- About 80% knew the preventive aim of vaccines
- Immunization acceptance: 97%
- Advice for immunization acceptance: 56% ➔ essentially administrative authority (34%) and medical doctor (38.5%)
Opinions and beliefs:

- For 69% of mothers, immunization causes adverse effects: fever, convulsions, allergies, autism, and insomnia.

- Concern by simultaneous administration of several vaccines (66.5%): diseases, allergies, and reduce efficacy of vaccines.
Opinions and beliefs:

- Fear about additional doses of oral poliomyelitis vaccine (19%):
  - doubts about the provenance of the vaccine,
  - not administered by health workers,
  - not reported in the health records,
  - too many immunization campaigns,
  - vaccines exposed to heat and sunlight.
Nearly 40% of mothers or accompanying relatives believed in various rumors

**Figure 3: rumors conveyed**
Conclusion

• Mothers 'children were completely immunized
• However, the level of knowledge of parents remains insufficient and was associated with erroneous beliefs
• The information, the education and the counseling are essentials to strengthen parents' confidence and develop the vaccinal activities
• Messages should reassure mothers and focus on the quality and safety of vaccination and vaccines.
EPI UNIT
EPI UNIT
THANK YOU VERY MUCH