CONTRACEPTIVE USE DYNAMICS IN PAKISTAN

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Background

- **Situation**
  - High TFR: 4.1 births per woman
  - Unwanted fertility rate: one child per woman
  - Stagnating CPR: 30 percent
  - Accelerating ever use: 49 percent
  - Gap between current and ever use has increased

- **Current Knowledge**
  - Many studies about contraceptive use prevalence **BUT**
  - Lack of data to study contraceptive use dynamics
Significance

It is important to understand the users’ perspective:

- how people use contraceptive methods
- how well these methods work
- what problems they have and
- How they perceive them
Data and Methods

Data

- FALAH data from 29 districts across Pakistan
- Sample size of 17,124 women
- Analysis based on 11,003 episodes of contraceptive usage

Methods

- Life table analysis
- Cox proportional hazard regression models
Objectives

- To estimate levels of use dynamics
- To investigate variability by:
  - Demographic and social characteristics
  - Contraceptive method
  - Intent for contraceptive use
- To investigate causes
Results
Contraceptive Discontinuation Rates at 12-months

- IUD: 23%
- Withdrawal: 36%
- Condom: 38%
- Rhythm: 38%
- Pills: 54%
- Injectables: 55%
Contraceptive Switching Rates at 12-months

Out of those who switched 60% adopted a less effective method
Contraceptive Failure Rates at 12-months

- IUD: 1%
- Withdrawal: 13%
- Condom: 10%
- Rhythm: 7%
- Pills: 10%
- Injectables: 4%
Contraceptive Failure Rates at 12-months

18% of all discontinuations are caused by method failure.
# International Comparison

<table>
<thead>
<tr>
<th>Country</th>
<th>Discontinuation rates</th>
<th>Switching rates</th>
<th>Failure rates</th>
<th>CPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakistan 2008-09</td>
<td>45</td>
<td>12</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>Bangladesh 2004</td>
<td>49</td>
<td>25</td>
<td>5</td>
<td>59</td>
</tr>
<tr>
<td>Kenya 2003</td>
<td>36</td>
<td>8</td>
<td>6</td>
<td>39</td>
</tr>
<tr>
<td>Zimbabwe 2005-06</td>
<td>18</td>
<td>5</td>
<td>2</td>
<td>60</td>
</tr>
<tr>
<td>Egypt 2005</td>
<td>32</td>
<td>12</td>
<td>3</td>
<td>59</td>
</tr>
<tr>
<td>Indonesia 2002-03</td>
<td>21</td>
<td>9</td>
<td>2</td>
<td>60</td>
</tr>
<tr>
<td>Colombia 2005</td>
<td>44</td>
<td>21</td>
<td>9</td>
<td>78</td>
</tr>
</tbody>
</table>

**All rates are calculated at 12-months**
Reasons for Discontinuation

- **IUD**
  - No further need: 60%
  - Failure: 20%
  - Side-effects: 5%
  - Dissatisfaction: 10%
  - Cost/access: 5%
  - Opposition: 0%

- **Withdrawal**
  - No further need: 30%
  - Failure: 50%
  - Side-effects: 5%
  - Dissatisfaction: 10%
  - Cost/access: 5%
  - Opposition: 0%

- **Condom**
  - No further need: 60%
  - Failure: 20%
  - Side-effects: 5%
  - Dissatisfaction: 10%
  - Cost/access: 5%
  - Opposition: 0%

- **Rhythm**
  - No further need: 60%
  - Failure: 20%
  - Side-effects: 5%
  - Dissatisfaction: 10%
  - Cost/access: 5%
  - Opposition: 0%

- **Pills**
  - No further need: 60%
  - Failure: 20%
  - Side-effects: 5%
  - Dissatisfaction: 10%
  - Cost/access: 5%
  - Opposition: 0%

- **Injectables**
  - No further need: 60%
  - Failure: 20%
  - Side-effects: 5%
  - Dissatisfaction: 10%
  - Cost/access: 5%
  - Opposition: 0%
## Hazard Ratios of Contraceptive Discontinuation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hazard ratio</th>
<th>Variable</th>
<th>Hazard ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age at discontinuation</strong></td>
<td></td>
<td><strong>Method</strong></td>
<td></td>
</tr>
<tr>
<td>15 – 24</td>
<td>2.50**</td>
<td>IUD</td>
<td>1.00</td>
</tr>
<tr>
<td>25 - 34</td>
<td>1.87**</td>
<td>Pills</td>
<td>2.06**</td>
</tr>
<tr>
<td>35 - 49</td>
<td>1.00</td>
<td>Injectables</td>
<td>2.03**</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td>Condom</td>
<td>1.25**</td>
</tr>
<tr>
<td>Rural</td>
<td>1.24**</td>
<td>Rhythm</td>
<td>1.23**</td>
</tr>
<tr>
<td>Urban</td>
<td>1.00</td>
<td>Withdrawal</td>
<td>1.26**</td>
</tr>
<tr>
<td><strong>Parity at discontinuation</strong></td>
<td></td>
<td><strong>Episode order</strong></td>
<td></td>
</tr>
<tr>
<td>0-2</td>
<td>1.00</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>3-4</td>
<td>0.92*</td>
<td>2+</td>
<td>1.28**</td>
</tr>
<tr>
<td>5 or more</td>
<td>1.14**</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wealth status</strong></td>
<td></td>
<td><strong>Intent</strong></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>1.16**</td>
<td>Limiting</td>
<td>1.00</td>
</tr>
<tr>
<td>Medium low</td>
<td>1.15**</td>
<td>Spacing</td>
<td>1.81**</td>
</tr>
<tr>
<td>Medium high</td>
<td>1.08*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>1.00</td>
<td>Illiterate</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Literate</td>
<td>1.01</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01
Discussion

- High level of discontinuation that does not involve switching
- Failure is the main reason for discontinuation for traditional and couple methods
- Side effects is the main reason for discontinuation of hormonal methods
- CPR could be improved by encouraging more switching in case of method dissatisfaction
Implications for FP Programs

- More active promotion of the IUD
- Provide sufficient information at the time of method acceptance
- Counseling about the management of side effects needs to be improved
- In case of method dislike, encourage switching
- Availability of all methods – everywhere
Thank You