Strong Predictors of the Unmet Need for Limiting and Spacing Births in Sub-Saharan Africa

Keriann M Schulkers, MPH
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Overview:

1. Introduction
2. Purpose and Objectives
3. Methodology
4. Results
5. Conclusion
6. Recommendations

Source: developmentalidealism.org
Benefits of Family Planning:

Since the 1960’s, family planning (FP) programs have assisted in:

- Raising the global prevalence of contraceptive use from 10% to 60%
- Reducing the average fertility in developing countries from six to about three births per woman\(^1\text{-}^3\)

Scaling up services to provide FP to all women would prevent:

- 52 million unintended pregnancies
- 23 million unplanned births
- 22 million abortions
- 7 million miscarriages
- 1.4 million infant deaths
- 142,000 pregnancy related deaths
- 505,000 children from losing their mother\(^4\)
Calculating the Unmet Need:

Women who are currently married or in union (15-49 years of age)

- Using for spacing
- Using for limiting
- Not using any method

Met need

Pregnant or amenorrheic
- Intended
- Method failure
- Mistimed

Not pregnant or amenorrheic
- Unwanted
- Fecund
- Infecund

Unsure if want later
- Need for spacing births

Want later
- Need for limiting births

Want no more

Want soon

Calculating the unmet need for FP as defined by the Demographic and Health Survey (DHS)\textsuperscript{5-7}
Rational for Focusing on SSA:

Sub-Saharan Africa (SSA) is the only region that has not made much progress in reducing its unmet need.
Purpose and Objectives:

Purpose:
- To add to the literature on the unmet need for contraceptives in order to assist policymakers and program managers in further reducing the large unmet need in SSA

Objectives:
- Determine differentials between the unmet need for spacing and limiting births in both West Africa and East/Southern Africa
- Identify strong predictors of the unmet need for FP, including spacing and limiting births
Methodology:

Data sources:
- DHS, United Nations (UN) Statistics, World Health Organization (WHO) and Population Reference Bureau (PRB)

Criteria for country selection:
- SSA countries with recent DHS survey from 2000 to 2007

29 countries in total:

- Benin
- Burkina Faso
- Cameroon
- Chad
- D.R. Congo
- Congo
- Eritrea
- Ethiopia
- Gabon
- Ghana
- Guinea
- Kenya
- Lesotho
- Liberia
- Madagascar
- Malawi
- Mali
- Mauritania
- Mozambique
- Namibia
- Niger
- Nigeria
- Rwanda
- Senegal
- Swaziland
- Tanzania
- Uganda
- Zambia
- Zimbabwe
Methodology:

Types of analyses:
- Descriptive
- Multivariate step-wise regression

Three dependent variables:
- Total unmet need for FP
- Unmet need for spacing births
- Unmet need for limiting births

21 independent variables
Independent Variables:

**Economic and Demographic:**
- % of Gross Domestic Product (GDP) annual growth
- GDP at Purchasing Power Parity (PPP)
- Per capita GDP
- Population density
- % of women who are literate
- % of women with no education

**Mortality and Fertility Rates:**
- Neonatal Mortality Rate
- Infant Mortality Rate
- Under Five Mortality Rate
- Maternal Mortality Rate
- Total Fertility Rate
- Wanted fertility Rate
Independent Variables:

**Family Planning:**

- % of married women who know least one contraceptive method (modern or traditional)
- % of married women who have ever used any contraceptive method (modern or traditional)
- % of women who have heard FP messages on radio in the last few months prior to interview
Independent Variables:

Other Health Indicators:

- % of married women who reported having a problem accessing health care
- % of children under five years of age who are underweight for their age
- Median age at first birth
- % of women who had a live birth (in three years preceding the survey) and did not receive antenatal care
- Median number of antenatal care visits for live births (in the three years preceding the survey)
- % of births (in the preceding three years) that were delivered in a health facility
Results – Descriptive Analysis:

<table>
<thead>
<tr>
<th>Total Unmet Need</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>West Africa</td>
<td>25.7</td>
</tr>
<tr>
<td>East/Southern Africa</td>
<td>26.5</td>
</tr>
</tbody>
</table>

Levels of unmet need in SSA, includes all 29 countries examined

Proportion of the type of unmet need in West Africa:
- Unmet need for spacing: 28%
- Unmet need for limiting: 72%

Proportion of the type of unmet need in East/Southern Africa:
- Unmet need for spacing: 43%
- Unmet need for limiting: 57%
Unmet Need within SSA:

**Range of total unmet need:** 12.8% (Zimbabwe) to 40.6% (Uganda)
Results – Descriptive Analysis:

Age of woman:

Unmet need for spacing

Unmet need for limiting

West Africa  East/Southern Africa

Percent of unmet need for spacing

Percent of unmet need for limiting

Age of group of women

Age group of women
Results – Descriptive Analysis:

**Education level:**

*Unmet need for spacing*

- **West Africa**
- **East/Southern Africa**

*Unmet need for limiting*

- **West Africa**
- **East/Southern Africa**

**Completed education level**
Results – Descriptive Analysis:

Wanted and total fertility rates:
Results – Descriptive Analysis:

Current use, ever use and knowledge of contraception:
Results – Multivariate Analysis:

Predictors of the unmet need for *limiting* births:

- **Model 1** = *Wanted fertility rate*
- **Model 2** = Model 1 + *Total fertility rate*
- **Model 3** = Model 2 + *Neonatal mortality rate*
- **Model 4** = Model 3 + *Percent of women who have heard FP messages on the radio*

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>.398</td>
<td>3.4511</td>
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<tr>
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<td>.762</td>
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<td>4</td>
<td>.901</td>
<td>.812</td>
<td>.776</td>
<td>2.1032</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Predictors of the unmet need for spacing births:

- **Model 1** = Percent of married women who have ever used any form of contraception (modern or traditional)
- **Model 2** = Model 1 + Percent of women who had a live birth (in three years preceding the survey) and did not receive antenatal care

<table>
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<tr>
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<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>.247</td>
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<td>2</td>
<td>.644</td>
<td>.415</td>
<td>.364</td>
<td>4.2399</td>
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</tr>
</tbody>
</table>
Results – Multivariate Analysis:

Predictors of the total unmet need:

- Model 1 = Population Density
- Model 2 = Model 1 + Gross Domestic Product (GDP) at Purchasing Power Parity (PPP)

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<th>Std. Error of the Estimate</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>.266</td>
<td>5.8876</td>
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</tbody>
</table>
Conclusion:

- There are large differences between predictors of the unmet need for spacing births and the unmet need for limiting births.
- Examining the total unmet need as a whole does not provide much information regarding the population at need.
- Understanding predictors of the unmet need for FP is necessary in order to develop effective programs and policies.
Recommendations:

Further research areas:

- Examining specifically the unmet need for spacing and the unmet need for limiting rather than the unmet need as a whole
- Examining the differences between levels of unmet need in West Africa and East/Southern Africa

Programmatic recommendations:

- Target populations based on the type of their unmet need, i.e., for spacing births or limiting births, as well as their predictors
I would like to give special thanks to Dr. Issakha Diallo, Dr. Diana Silimperi, Dr. Gloria Sangiwa, and Dr. Halida Akhter at Management Sciences for Health (MSH) for their wonderful guidance and support. I would also like to thank Dr. Robert Hirsch at George Washington University for overseeing the data analysis.

Source: developmentalidealism.org
References:


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