Determinants of long-acting reversible contraceptive use among women in Chad: Results from Supporting Access to Family Planning and Post-Abortion Care (SAFPAC) Initiative

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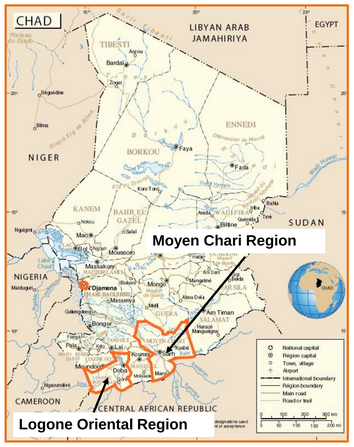
Background

Long-acting reversible contraception (**LARC**), specifically intrauterine devices (IUDs) and implants, are an effective tool to prevent unintended pregnancies.



Reproductive health indicators for Chad are poor, which indicates the need of modern FP:

- TFR = 6.4 per woman
- MMR = 980 per 100,000 live births
- **CPR = 4.8%**
- **CPR for IUD & implants < 0.1%**
- Unmet need for FP = 22%

The **SAFPAC Initiative** aims to increase access to LARC within a full range of modern FP methods. From July 2011 to December 2012, SAFPAC was implemented through 14 government supported health facilities in two regions in Chad, in **Logone Oriental** Region and **Moyen Chari** Region.

Program Intervention

SAFPAC's strategy for providing high-quality family planning services:

1. Providing **competency-based training** on FP counselling and clinical skills to providers followed by clinical assessment and mentoring
2. Ensuring the **continuous supply** of the full range of FP methods and supplies
3. Conducting **systematic facility and provider supervision** on a regular basis in partnership with local government health officials
4. **Mobilizing communities** to raise awareness about family planning and change social and gender norms that limit women's access to services

Methods

From July 2011 to December 2012, 8,179 FP clients' records were collected from 14 SAFPAC Chad facilities. Epi Data was used for data entry, and SPSS 22 was used for binary and multivariate analysis.

We are specifically interested in exploring the determinants (e.g. socio-demographic and reproductive factors) of women's acceptability for LARC.

Results

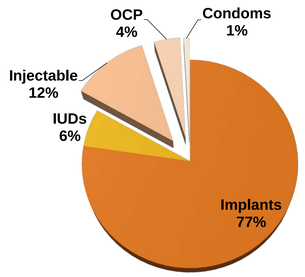
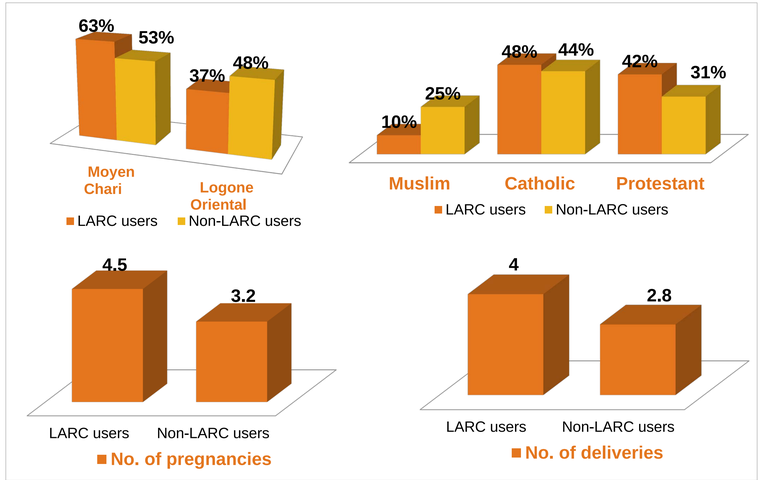


Figure 1. Contraceptive Method Mix for the 8,179 new FP clients in SAFPAC Initiative in Chad

Major characteristics of these new FP clients:

- **District**: Danamadji (61%), Gore (39%)
- **Age**: adolescents (12%), 20s (50%), 30+ (38%)
- **Marital Status**: married (89%), unmarried (11%)
- **Religion**: Christian (87.5%), Muslim (12.5%)
- **Occupation**: employed (94%), unemployed (6%)
- **No. of pregnancies** (Mean): 4.3
- **No. of deliveries** (Mean): 3.8

Figure 2. Socio-demographic and reproductive characteristics of new FP clients by LARC use in SAFPAC Initiative in Chad



* All percentages are percentage among LARC users or Non-LARC users
*p-values comparing LARC users and Non-LARC users for the four characteristics are all significant (< 0.05)

Table 1. Odds ratios for LARC use among new FP clients in SAFPAC Initiative in Chad

Variable	LARC use	
	OR (95% CI)	p-value
Region (%)*		
Moyen Chari	-	
Logone Oriental	0.62 (0.54 – 0.71)	.000
Age (%)		
14-19	-	.000
20-29	0.71 (0.58 – 0.87)	.001
30 or >	0.42 (0.33 – 0.54)	.000
Religion		
Muslim	-	.000
Catholic	2.70 (2.26 – 3.22)	.000
Protestant	2.94 (2.44 – 3.54)	.000
Number of pregnancies	1.23 (1.20 – 1.27)	.000

Discussion

Our analysis found that women's preference for LARC is determined by age, religion, parity and geographical location:

- **Age**: Adolescent girls were more likely to choose LARC over other methods compared to older women.
  - In communities, our behavior change communication strategy addressed the issue directly (emphasizing the health and material benefits)
  - For providers, we clarified the eligibility of LARC during trainings; also BCS+ counselling strategy is introduced to eliminate provider bias and ensure woman gets most appropriate method for her
- **Religion**: Muslims women had lower preference for LARC than for other methods as compared to women of other religions.
  - Health education activities and discussions on FP were facilitated by religious leaders committees which included imams
  - However, there were limitations on conducting those activities with Muslim women (e.g. covering faces, standing behind bush), which potentially led to less information and opportunities to ask question about methods especially new methods
- **Parity**: The higher the women's parity was, the more likely she was to choose LARC.
  - The relationship between parity and LARC acceptability is independent of region, age, religion
- **Location**: A significant difference exists between the two regions the project operated in.
  - The training, supervision, supply and commodity provision and community engagement strategies were all identical between the two sites
  - However, a training center is located in Moyen Chari instead of Logone Oriental
  - Other local social networks and community level factors not yet completely understood (align with other studies) might contribute to the geographical difference.

Conclusions

It is possible to provide high-quality, modern family planning services with high acceptance of long-acting reversible methods in crisis-affected countries like Chad. However, different groups of women have different preference for and barriers to LARC methods compared to non-LARC methods. Programming should investigate and address lower acceptability of LARCs among Muslim women and older women using modern FP and document reasons for success in reaching adolescent girls with LARCs comparing to Non-LARC methods.

Acknowledgements

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