

Research Article

Family planning: formal health care providers' challenges in the district of Antananarivo Avaradrano

Barbara Elyan Edwige Vololonarivelo^{1*}, Jean-Florent Rafamatanantsoa¹, Valéry Bruno Andriantoky¹, Julio El-C Rakotonirina², Antso Hasina Raheinandrasana¹, Seheno Noro Ratsimbazafy¹, Jean de Dieu Marie Rakotomanga²

¹Faculté de Médecine d'Antananarivo, Madagascar

²Institut National de Santé Publique et Communautaire, Antananarivo, Madagascar

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*Correspondence:

Dr. Barbara Elyan Edwige Vololonarivelo,

E-mail: barbara1elyan@gmail.com

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ABSTRACT

Background: Recorded contraceptive prevalence may not represent all the women using contraceptives. Nevertheless, it serves as a fundamental tool in decision-making at Ministry and international level. This study aims to determine the actual contraceptive prevalence and identify factors determining users' positions about modern contraception and local services deliveries in the district of Antananarivo Avaradrano.

Methods: A cross-sectional survey was conducted, where an interviewer-administered questionnaire has been used to collect data. Targeted female respondents aged 18-39 were asked about their contraceptive use, knowledge and information sources on family planning, perception of social support and perception on the local health care providers.

Results: Contraceptive prevalence is underestimated. Moreover, it is higher among women aged 35 to 39 and those having two children or more, but lower among those who have reached university level of education. Women who are able to tell two benefits of family planning, informed by the community health agents (CHA), and deciding with their partners on contraception use are more likely to use contraceptives on a regular basis. Women complain on their poor relationship with health care providers and doubt about their real competence.

Conclusions: This study demonstrates the evidence of an underestimation of contraceptive prevalence. The challenge is how to collect reliable data, thus recording systems have to be improved. Besides, government efforts in increasing contraceptive use ought to be targeted on adolescents and young people aged 20-25, the couple itself, health-care provider – woman relationship, and on the CHA's activities.

Keywords: Contraceptive prevalence, Modern contraceptive, Socioeconomic status, Source of contraceptives, Antananarivo

INTRODUCTION

Reproductive health implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Reproductive rights rest on

basic rights, including the recognition of the right to attain the highest standard of sexual and reproductive health.^{1,2} Thus, beyond the Millennium Development Goals (MDG), family planning has a direct influence on improving lives worldwide. And the fifth MDG has a theme which states the importance of the universal access

to reproductive health services, including family planning.³ Contraceptive prevalence proves to be the important tool for measuring its achievement.⁴ It reached 63% from 2005 to 2010 worldwide, 24% in the African region and 40% in Madagascar.⁵ Otherwise, the Global strategy for woman and child health is based on the commitments made by countries and partners in several frames,^{6,7} calling them to take action in improving services.⁸ In Madagascar, in addition to the efforts of the Ministry of Health, the WHO provided support for the country in the implementation of family planning norms.⁹ And the Ministry of Health aims to reach a 100% contraceptive prevalence in 2015.¹⁰ To achieve this, a policy based on the realities should be designed and implemented. Health information is vital for decision-making, monitoring/evaluation of programs, progress and performance of the health system.¹¹ In addition, the Commission on Information and Accountability for woman and child health recommended, in its 2011 report, as the starting point of accountability to health, that by 2015, all countries should have functioning health information systems combining data from health facilities, from administrative sources and surveys.¹²

Thus it is crucial to differentiate recorded contraceptive prevalence and actual contraceptive prevalence. The first is the data provided by health facilities, whose base is the number of users registered there.^{13,14} While the second corresponds to the proportion of all users (registered or unregistered). A gap could be found between these prevalences, as women can use contraception without being registered in the health facilities.^{15,16} Health information based on reliable data, however, is vital for decision-making and for monitoring and evaluation of programs.¹¹ Given this need, we decided to conduct this study, which has the following objectives: (i) Determine the impacts of socio-economic status of women of reproductive age (WRA) living at Antananarivo Avaradrano on contraceptive prevalence, (ii) Identify for each woman the factors depending on herself, her partner, or her entourage determining her position about modern contraception and local services deliveries, (iii) Identify for each woman the factors depending on the services determining her choice of attending local services, (iv) Make suggestions or recommendations based on the results to the competent authorities.

METHODS

Study site and population

The study was conducted at the rural district of Antananarivo Avaradrano, located in the region of Analamanga in Madagascar. It covers a 560 km² area with 276,256 inhabitants in 2012, including 64,644 WRA. The District Service for Public Health (DSPH) has at its disposal: 21 Basic Health Centres (BHC), the distance between an administrative division (called "fokontany") and its related BHC varying from 0 to 14 km, 2 District Referral Hospitals (DRH) and 35 private

health facilities. A census of pharmacies was done, yet we did not find any data on their count. On the contrary, 38 custodians of drugs were identified.

Data collection

Definitions were formulated for this study. Modern contraceptives include: male condoms, pills, injectables, implants and intrauterine device (IUD) in order to classify women as users or non-users; emergency pills, female condom, vaginal rings, female sterilization and vasectomy were added to the first ones in order to count the methods known by each woman. Moreover, a regular user of contraceptives is a user who usually came back for control at the appointed time (by contraceptive type) during the studied period (monthly for pills, every three months for injectables, 6 months from last appointment for implants and IUD). Recorded contraceptive prevalence is defined as contraceptive prevalence derived from Monthly Activities Reports (MAR) data of the health centres of the district, and processed with the April 2012 version of the specific software GESIS (currently used at the District Health Office for processing casual MAR data). This rate is theoretically calculated by dividing the number of regular users by the number of WRA of the district. Contraceptive prevalence derived from the survey data is the real contraceptive prevalence. It is theoretically calculated by dividing the number of regular users by the total number of the women constituting the pattern.

A cross-sectional survey was conducted, where an interviewer-administered questionnaire has been used to collect data among WRA. The survey gathered information on targeted respondents' use of contraceptives, knowledge and sources of information on family planning, contraceptive prescriber and sources of contraceptives, perception of social support and of local family planning services. Women aged 18 to 39 and living permanently in the district since January 2012 were selected for the study. Women meeting one or more of the following criteria were excluded: resort to female sterilization, never had any sexual activity, unable to answer the questionnaire (dumb, hard of hearing, mentally disabled, not speaking the language or dialect used by the investigator), nun. A sample of 210 women was formed up from a cluster sampling.

Data management and analysis

Data collected on individual forms were compared to the MAR data (data from January 2012 to July 2012) concerning contraceptive prevalence. Data were analyzed using EXCEL 2007 and Epi Info 3.5.3 version. The chi-square Pearson was used to assess the significance of the difference between two proportions, the Student t test to compare two means. The chosen level of significance was set at 0.05.

RESULTS

1. General characteristics.

Among 212 respondents the number of non-users (n=102, 48.1%) and users (n=110, 51.9%) were approximately the same. Users included 103 regular users (48.6%) and 7 (3.3%) irregular users of at least one modern contraceptive. Respondents' median age was 27 years with a minimum of 18 and a maximum of 39. While the age mean (\pm standard deviation) was 27.8 years (\pm 5.5). About the level of education: 25% of primary, 65% high school, 7.6% of university and 2.4% have never been to school. On average, women have two children to support. Injectables (61.3%), followed by pills (22.5%), are most commonly used.

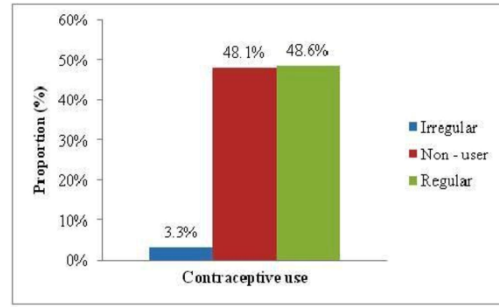


Figure 1: Distribution of users according to the regularity of their contraceptive use.

2. Socioeconomic characteristics.

Table 1: Distribution of modern contraceptive users according to their social characteristics.

Social characteristic		Contraceptive use							
		Regular		Irregular		Non-use		Total	
		n	%	n	%	n	%	n	%
Age (years)	< 20	2	12,5	0	0	14	87,5	16	100
	20 - 24	20	46,5	2	4,7	21	48,8	43	100
	25 - 29	36	51,4	1	1,4	33	47,1	70	100
	30 - 34	27	48,2	3	5,4	26	46,4	56	100
	35 - 39	18	66,7	1	3,7	8	29,6	27	100
Religion	Catholic	35	52,2	4	6	28	41,8	67	100
	Not catholic	68	46,9	3	2,1	74	51	145	100
Matrimonial status	Married	101	57,1	7	4	69	39	177	100
	Not married	2	5,7	0	0	33	94,3	35	100
Education level	Primary	33	62,3	0	0	20	37,7	53	100
	High school	63	45,7	6	4,3	69	50	138	100
	University	3	18,8	1	6,3	12	75	16	100
	Uneducated	4	80	0	0	1	20	5	100
Profession	Primary sector	45	69,2	1	1,5	19	29,2	65	100
	Secondary sector	0	0	0	0	3	100	3	100
	Tertiary sector	38	46,3	3	3,7	41	50	82	100
	Student	2	16,7	0	0	10	83,3	12	100
	Housewife	18	37,5	2	4,2	28	58,3	48	100
	Out of work	0	0	1	50	1	50	2	100
Use of electricity	Yes	66	45,5	5	3,4	74	51	145	100
	No	37	55,2	2	3	28	41,8	67	100
Use of running water	Yes	32	45,1	2	2,8	37	52,1	71	100
	No	71	50,4	5	3,5	65	46,1	141	100
Dependant children	< 2	29	33,7	2	2,3	55	64	86	100
	2 to 4	70	58,8	5	4,2	44	37	119	100
	> 4	4	57,1	0	0	3	42,9	7	100

Table 2: Distribution of modern contraceptive users according to their economic characteristics.

Economic characteristic		Contraceptive use							
		Regular		Irregular		Non-use		Total	
		n	%	n	%	n	%	n	%
Monthly income (MGA)	< 100,000	38	48,7	3	3,8	37	47,4	78	100
	≥ 100,000	65	48,5	4	3	65	48,5	134	100
Possession of electronic devices	Yes	96	48,5	7	3,5	95	48	198	100
	No	7	50	0	0	7	50	14	100
Possession of property	Yes	67	45,9	4	2,7	75	51,4	146	100
	No	36	54,5	3	4,5	27	40,9	66	100
Use of land for investment	Yes	47	42,7	3	2,7	60	54,5	110	100
	No	20	57,1	1	2,9	14	40	35	100
	No property	36	53,7	3	4,5	28	41,8	67	100

The analysis presented in Table 1 states that contraceptive prevalence varies according to the social characteristics of the user. Indeed, non-users are significantly younger than users (26.7 years versus 28.8 years, $p = 0.005$). Among users, those aged 25 - 29 predominate ($n = 36$). But those belonging to the 35 - 39 age group mostly use contraceptives (66.7%). Regular contraceptive use is lowest among women of university level (18.8% versus 62.3%, $p < 10^{-5}$); it is significantly important for those who support at least two children (58.8% versus 33.7%, $p = 0.0002$).

The analysis presented in Table 2 shows that regular contraceptive use just varies slightly according to the user's economic characteristics, although the differences were not significant.

3. Relationship between the factors depending on the woman herself, her partner or entourage and her position about modern contraception and local services deliveries.

In total, 97.6% of all respondents know 2 methods or more and 59.9% are able to name two benefits of family planning. It was observed that the more contraceptive methods women know, and when they are able to name two benefits of family planning, the more they tend to use contraceptives (respectively 52.2% versus 20%, $p < 10^{-7}$ and 59.1% versus 41.2, $p = 0.01$). Contraceptive use proves to be better when three entities (the woman, her partner and the parents) are involved in decision-making (87.5% versus 36.2%, $p < 10^{-7}$).

Discussion on family planning with the partner results in better contraceptive use. The analysis presented in Figure 2 shows that 67.4% of the users' partners approve family planning.

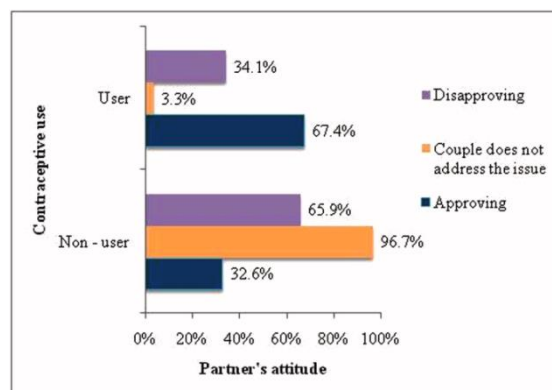


Figure 2: Distribution of contraceptive use according to the attitude of the partner.

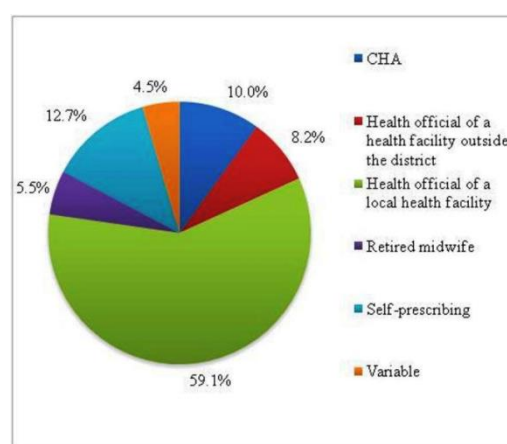


Figure 3: Distribution of contraceptive use by prescriber.

This figure identifies the main contraceptive prescribers, represented by the health care professionals in local health facilities. In addition, among the 103 regular users,

61 receive the prescription of a health care professional of a local health facility, which makes up to 28.8% of regular users.

In addition, the study identified the main barriers to attendance at local health facilities, which are in descending order of frequency: attendance at other health facilities as users' convenience (27.5%), services not available (12.7%), doubts about the effectiveness and the quality of the proposed methods (4%), and fear of being stigmatized (9.8%). This study also demonstrates that no woman experiencing shame towards local health facilities uses any contraceptives.

4. Relationship between factors related to service deliveries and attendance of local services.

This study shows that 76.9% of respondents intend to attend local for their current or future family planning. Requests relate to the cold welcoming (n = 27), unclear explanations granting (n = 27), the remoteness of the BHC locations (n = 19), the lack of qualified staff (n = 19), the limited range of contraceptive choices (n = 15) and waiting for the consultation (n = 10). It should be noted that the above requests are regular users'. Among modern contraceptive users, 53.6% were satisfied with the services deliveries they have chosen. Among those attending local services, 58.6% were satisfied with services which were provided. All women attending the services of the community health agent, the custodian, the private midwife and the health care professional outside the district were satisfied (respectively 100%).

DISCUSSION

This study identified that actual contraceptive prevalence is estimated at 48.6% (95% Confidence Interval: 48.6 +/- 0.2) from January 2012 to July 2012 at the district of Antananarivo Avaradrano. While the prevalence reported by the District Health Office District (from MAR) during the same period is 3.2%. This underestimation is strongly related to the non-completeness and readiness of the submission of the reports from local health facilities. But this reported, underrated figure becomes the basis of all decisions at Ministry level. Referring to the formula for calculating contraceptive prevalence,^{13,14} the numerator of which is constituted by regular users registered in local health facilities, and assuming that the conditions of completeness and timeliness are met, the health district should have declared 28.8% instead of 48.6%. The difference being made up of self-prescribing women, or women registered in health facilities outside the district etc. Therefore, it is possible to infer that the effort of the Ministry of Health has a significant effect among the population,^{17,18} contrary to what other authors confirm by reporting the absence of significant progress.¹⁸ Still, it seems interesting to count users in order to obtain more accurate data for better decision-making. Thus, assuming that all health facilities send full MAR timely, actual prevalence may be inferred from recorded prevalence by

means of a statistical formula. The constant between the two prevalences would be the difference between the proportion of all regular users (48.6%) and the proportion of regular users registered in local health facilities, which is 19.8. The limit of this formula is that it is derived from a single district, hence the need for further study at a national level that would provide a valid constant for finding the true prevalence in Madagascar.

Women using injectables and pills are the most numerous. Omo Aghoja and his team also suggest the prevalence of these methods.¹⁹ The results of the Demographic and Social Survey (DSS) from 2008 to 2009 show this preference for injectables and pills, but male condom use was relatively higher. The predominance of different age groups could explain this difference: the 30 to 34 years for DSS²⁰ versus the 25 to 29 years in this study, with likely preferences for male condoms among older.

Women socioeconomic status

The maximum level of modern contraceptive use is in the 35 to 39 age group. In addition, women working in the primary sector and those of lower educational level (primary education or who have never been to school) are more likely to use modern contraception on a regular basis. The results of the study by Mounira Al Sheeha in Saudi Arabia are similar, except for the level of education.²¹ The difference could be explained by a tendency deterring woman towards modern contraceptives use as they acquire a high level of education, implying mistrust with a presumed better knowledge of modern contraception. The information held to be true by these women, however, can be related to misconceptions.²²

The results of this study highlighted the lack of significant difference between most of the socioeconomic status of women concerning contraceptive use. Ruiz-Muñoz and Pérez, assessing the impacts of women's socioeconomic status on contraceptive use, concluded that the choice of modern contraception seems to be more strongly related to their stage of life than their socioeconomic status.²³

Relationship between the factors depending on the woman herself, her partner or entourage and her position about modern contraception and local services deliveries

On the one hand, women know 2 contraceptive methods or more. On the contrary, the results of a study conducted in Saudi Arabia identify the low level of women's knowledge about the varieties of contraceptives (50% know only 2 contraceptive methods).²¹ On the other hand, women able to name two benefits of family planning are more likely to regularly use modern contraceptives. According to Monjok and his team's study in Nigeria, good knowledge and awareness of the benefits of family

planning do not necessarily lead to high contraceptive use,²⁴ which differs from the tendency demonstrated in our study. The differences in the results could be explained by the main sources of information including health care professionals at Avaradrano, while they include family members and mass media in Saudi Arabia and Nigeria.^{21,24} Omo-Aghoja and his team find out that physicians, as sources of information, do not significantly increase contraceptive use.¹⁹ In our study, as was noted above, it is the opposite. The content of the information provided by health care professionals could explain the difference.¹⁹ Thus, Miia Tiihonen found that women prefer health care professionals when it comes to getting information about the benefits of contraceptives and the adverse effects.²⁵ Women informed by community health agents are more likely to use contraception. To Lee, those informed by community health agents also have a higher contraceptive use.²⁶ This similarity could be explained by the considerable contribution made by CHA in disseminating information, with a better acceptability of information received from them, such as Kirsten Stobenau emphasizes in his study: CHA were clearly at the centre of family planning: 35% of women were directly communicating with a CHA on family planning issues or were indirectly linked to a CHA.²⁷

Contraceptive use is higher when the couple makes the decision to use contraception. Mai Do and Nami Kurimoto also find that the agreement of the couple on fertility preferences is associated with contraceptive use.²⁸ Our study points out partners tend to have an approving attitude. Ghazaleh Samandari and his team quantitatively analyzed the role of social support in contraceptive use in two rural provinces of Cambodia. Those who thought that their husband had a positive attitude towards contraception were more likely to use a method (odds ratio 3.4), while those who feared the idea of talking about contraception with their husband were less likely to use a method (odds ratio 0.6).²⁹ In addition, Mekonnen and Worku found that women who had the support of their partners were 2.6 times more likely to use contraception.³⁰ There is a different situation described by Chimaraoke Izugbara and his team in their study conducted in northern Nigeria: women say that discussing about family planning with their husbands would threaten their marriages, because greater parity is the only key to retain the husband's attention by empowering him in making investments for his children.³¹

Relationship between factors related to service deliveries and attendance of local services

The analysis demonstrated that women's requests as they want to attend local services for their family planning are related to: cold welcoming, unqualified staff, the limited range of choice and waiting for consultation. Sabina Faiz Rachid similar results regarding the availability of physicians: the latter are missing at their workplace, and are not enthusiastic about working in rural areas inter alia.³² Wittman Juliette outlines that users doubt the generalist's skills.³³ Local health staff could play a role in

this, particularly in the public sector with trainees whose skills are still to be acquired, beside clients' bias towards the general practitioners.

Women attending a CHA's are usually satisfied. This result concurs with Brunnie and her team's. They also found that almost all clients (92%) have expressed their willingness to recommend their CHA to their friends, indicating a high degree of acceptance and client satisfaction.³⁴ It is important to pay particular attention to the roles the CHA could play for the proper functioning of the program, if we are to fructify the family planning work which remains uncompleted.²²

CONCLUSIONS

This study provided the evidence of a gap between recorded contraceptive prevalence and actual contraceptive prevalence, mainly due to a failing system of data collection and reporting. Contraceptive prevalence varies according to the social characteristics of women, but varies slightly according to their economic characteristics. The highest level of contraceptive use is found in oldest women, uneducated and supporting two children or more. In addition, information by a CHA on family planning determines a better contraceptive use. Factors related to local services deliveries determining their attendance by women are about the provision of clear information on the adverse effects and potential health risks of the contraceptives, the provision of a wide range of methods, and the establishment of a service provider-woman relationship based on dialogue and empathy. Besides, health care providers have the duty to provide high quality health information, basis of all decision-makings at Ministry level. They also need to extend their family planning activities to adolescents and youth, academics and the couple. The role of the CHA should be taken into account if we are to carry out the family planning work.

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