Population Association of America 2006 Annual Meeting
Los Angeles, CA March 30 to April 1, 2006
Extended abstract

September 21, 2005

CONTRACEPTIVE FRAILTY: AN ANALYSIS OF PROSPECTIVE CONTRACEPTIVE HISTORIES, FRANCE, 2000-2004

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Background

Repeated transversal contraceptive use data are adequate to characterize a population's method mix, to describe the diffusion of different methods across cohorts and sub-groups, to determine what methods are used at different life stages and by different women, or to identify who are more likely to not be using contraception while at risk of an unplanned pregnancy. In France for example, researchers have thoroughly documented the diffusion of medical[1] contraceptive methods over the last three decades using period contraceptive use data collected in five surveys in 1971, 1978, 1988, 1994 and 2000 (Collomb, 1979; Toulemon and Leridon, 1991, 1992; de Guibert-Lantoine and Leridon, 1998; Leridon et al., 2002, Bajos et al., 2004).

However, current contraceptive use data are ill-fitted to study contraceptive failures[2]. They can only help identify what individual characteristics are associated with the use of less effective methods or of no method at all. But contraceptive failures do not occur exclusively to certain categories of women, who do not adopt a contraceptive method or who adopt a less efficient method. In the context of Western countries, contraceptive failures may be due as much to the conjuncture of particular life circumstances which weaken women's contraceptive competence, as to the effect of deep-rooted traits constant over women's life course. Multi-dimensional life course events data, including detailed contraceptive and pregnancy histories, are necessary to test this hypothesis.

Rarely collected before, contraceptive biographies are now available in more than 30 DHS (Cleland, 2004); experience has been accumulated and techniques have been developed to handle these complex data sets (Khatun and Willekens, 2001, Steele and Curtis, 2003). Existing analyses of contraceptive histories data (mainly in developing countries and in the U.S.) have focused so far on the rates and determinants of method adoption (method choice), method switching (especially from a modern to a traditional method), and method discontinuation (from a method to no method at all) (Steele, Curtis, Choe, 1999, Steele and

[1] Medical contraceptive methods are defined as all methods whose use involves an interaction with a health worker (pill, IUD, Norplan, etc.). Barrier methods are defined as all methods which require the use of a device at the time of the sexual intercourse to prevent a contact between the sperm and the egg (condoms, spermicidal, diaphragm,…). Natural methods are all methods whose use requires no device or medical appointment (periodic abstinence, withdrawal,…).

[2] We define contraceptive failures as the occurrence of unplanned pregnancies, whether contraception was used prior to the pregnancy or not.

Diamond, 1999, Blanc, Curtis, Croft, 1999)[3]. The effect of contextual supply factors, such as the availability of family planning services, on method adoption, discontinuation or switching has been of special interest.

Conceptual framework

In this paper, we propose to examine the different contraceptive transitions (adoption, switching, discontinuation) highlighted in the literature. We hypothesise that all these transitions are characterized by a temporary increase in the risk of contraceptive failure, that is, by a greater occurrence of unintended pregnancies. In other words, women would be less able to prevent an unplanned pregnancy right after adopting or switching to a new method (medical or non medical), and when they are not using a method while at risk of an unintended pregnancy.

Table 1: Contraceptive use transitions involving a greater risk of unintended pregnancies

	Not at risk (no partner, not fecund, seeking a pregnancy, pregnant)	At risk, not using contraception	Using medical contraception	Using non medical contraception
Not at risk (no partner, not fecund, seeking a pregnancy, pregnant)		X (no adoption)	X (adoption)	X (adoption)
At risk, not using contraception			X (adoption)	X (adoption)
Using contraception (medical)		X (discontinuation)		X (switching)
Using contraception (non medical)		X (discontinuation)	X (switching)	

We will try to explain the transitions to these moments of greater "contraceptive frailty" in the perspective of a recent sociological theory of contraceptive failures (Bajos et Ferrand, 2002). According to these authors, contraceptive failures are more likely to occur in the following circumstances:

- first, when the partners do not rely on the same socially constructed logics in terms of sexuality, affectivity, and reproduction, for example at the beginning of their relationship, or when the partners' status is divergent (less equalitarian couples);
- second, when there are normative tensions between health staff and clients, who do not necessarily share the same conceptions of contraception and sexuality;
- third, when the visions of sexuality and reproduction in women's milieu of origin and their current social insertion are conflicting.

Data and methods

In order to investigate women's moments of "contraceptive frailty", we will use a French longitudinal contraceptive survey named COCON (COhorte CONtraceptive). A representative sample of 2 863 women was interviewed in 2000, and the same women were interviewed again each year until 2004. Information on contraceptive use and on different life

[3] Retrospective contraceptive histories have also been used to describe the historical diffusion of varied contraceptive methods over time and across ages when repeated transversal surveys are not available (Ali, Cleland, and Shah, 2003, Rossier and Leridon, 2004, Le Goff, 2005).

events were collected each year, including, after 2001, detailed data on contraceptive changes over the last year. The attrition of the sample is rather important, but does not seem to introduce supplementary biases (Razafindratsima and Kishimba, 2004); in 2002, 1912 women were interviewed, and 1569 in 2004.

We will first model the risk of unintended pregnancy using event history analysis techniques, in order to see if the risk of such events increase as hypothesized, when women adopt a new contraceptive method, switch from one to another, or when they stop using a method while at risk of such an unintended pregnancy. In a second stage, we will examine which factors are associated with the transitions to moments of greater contraceptive frailty. We will include different kinds of individual level variables in our models: some will characterize the status of the relationship (in particular whether the relation is new, or close to a break-up) and the partners' respective statuses; others will be indicators of the quality of contraceptive care received by women; other will measure the cultural distance with the social milieu of origin (nationality).

References

Ali M., J. Cleland and I. Shah (2003) "Trends in reproductive behaviour among young single women in Colombia and Peru : 1985-1999", Demography, 40(4): 659-673.

Bajos N., Oustry P., Leridon H., Bouyer J., Job-Spira N., Hassoun D. and the Cocon group (2004), « Les inégalités sociales d'accès à la contraception en France », Population, 59(3-4) : 479-502.

Blanc A.K., Curtis S. and T. Croft (1999) *Does contraceptive discontinuation matter? Quality of care and fertility consequences.* Chapel Hill, North Carolina, University of North Carolina at Chapel Hill, Carolina Population Center, MEASURE Evaluation, 58 p.

Cleland J. and Ali M. (2004), "The use of Demographic and Health Surveys to monitor reproductive behavior of single women", paper presented at the *Chaire Quételet 2004 Santé reproductive au Nord et au Sud. De la connaissance à l'action*, 17-20 novembre 2004, Université Catholique de Louvain la Neuve.

Collomb P. (1979), "La diffusion des méthodes contraceptives modernes en France de 1971 à 1978", *Population*, 34(6): 1045-1066

De Guibert-Lantoine C., Leridon H. (1998), "La contraception en France: Un bilan après 30 ans de libéralisation", *Population*, 53(4) : 785-812

Khatun M; and Willekens F. (2001), *The life history calendar : technical aspects of data analysis using contraceptive calendar of the Bangladesh Demographic and Health Survey*, Working Paper 01-2, Population Research center, University of Groeningen.

Le Goff J.-M. (2005), "The diffusion of the pill in Switzerland", poster presented at the *XXV International Population Conference*, Tours, 18-13 July.

Leridon H., Oustry P., Bajos N. et le Groupe COCON (2002), "La médicalisation croissante de la contraception en France", *Population et Sociétés*, n° 381.

Razafindratsima N. and Kishimba N. (2004), "Attrition in the COCON cohort between 2000 and 2002", *Population*, 3-4 : 419-447.

Rossier C., H. Leridon and the Cocon group (2004) "The pill and the condom, substitution or association ? An analysis of the contraceptive histories of young women in France, 1978-2000", *Population,* 2004, 59 (3).

Steele F, Curtis S.L. and M. Choe (1999), "The impact of family planning service provision on contraceptive-use dynamics in Morocco", Studies in family Planning, 30(1):28-42.

Steele F. and I. Diamond (1999), "Contraceptive switching in Vietnam in 1994-95", Studies in Family Planning, 30(4): 302-314.

Steele F. and S. Curtis (2003) "Appropriate methods for analyzing the effect of method choice on contraceptive discontinuation", Demography, 40(1): 1-22.

Toulemon L., Leridon H. (1991), "Vingt années de contraception en France: 1968-1988", *Population*, 45(4) : 777-812

Toulemon L., Leridon H. (1992), "Maîtrise de la fécondité et appartenance sociale : contraception, grossesses accidentelles et avortements", *Population*, 46(1) : 1-4.