

UNIVERSITY OF SOUTHAMPTON

Faculty of Law, Arts and Social Sciences

School of Social Sciences



**ETHNIC DIVERSITY IN REPRODUCTIVE BEHAVIOUR
IN GUATEMALA,**

A FOCUS ON THE CH'ORTI AREA

by

Sofie De Broe

Thesis for the degree of Doctor of Philosophy

December 2005

*I dedicate this thesis to the Hermanas de la Anunciación who made me
discover poverty in all its dimensions*

UNIVERSITY OF SOUTHAMPTON

ABSTRACT

FACULTY OF LAW, ARTS AND SOCIAL SCIENCES

SCHOOL OF SOCIAL SCIENCES

DOCTOR OF PHILOSOPHY

**ETHNIC DIVERSITY IN REPRODUCTIVE BEHAVIOUR IN GUATEMALA,
A FOCUS ON THE CH'ORTI AREA**

BY SOFIE DE BROE

This thesis highlights the extent of ethnic diversity in reproductive behaviour in terms of fertility, use of family planning and modern pregnancy related care in Guatemala and explores some of the reasons behind this diversity. Guatemala is one of the poorest countries in Latin America and is characterised by extremely unequal distributions of socio-economic resources between its different social and ethnic groups. This study uses various existing data sources, original data, methodologies and a qualitative and quantitative approach to pursue its aim.

This thesis consists of four papers and includes a case-study of the understudied Ch'orti area. The first paper contributes to the understanding of fertility patterns in urban and rural areas by using the existing survey and census data for Guatemala. The analysis identified a very slow fertility decline since the early 1980s in rural areas, stagnation in fertility trends in urban areas until the end of the 1990s and a sharp decline in overall fertility since then. The analysis of the census data showed the impact of the ethnic composition and diversity on fertility at the level of the *municipio*. The second and third paper present the results of two household surveys, one undertaken in 1994 in two indigenous villages (*aldeas*) and one in 2001 in Jocotán town, the capital of the Ch'orti area, on the use of family planning and modern pregnancy related care among different ethnic groups. This survey used the alternative approach of classifying ethnic groups, who were not identifiable by language and dress, according to self-identification and place of birth. The results showed significant differences in reproductive behaviour between the ethnic groups living in close proximity of one another, demonstrating the extent of ethnic diversity in reproductive behaviour in Guatemala. The fourth and last paper explores which factors could be responsible for the lower uptake of contraception among the indigenous communities in the Ch'orti area. The results suggest that geographical access, quality of care and medical barriers such as provider bias, at existing family planning services and lack of prioritisation of family planning policies contribute to persistent low uptake of contraception among the indigenous communities in Guatemala.

Table of content	Page
Abstract.....	iii
List of Tables.....	ix
List of Figures	xii
Declaration of authorship.....	xiv
Acknowledgements.....	xv
Definitions, abbreviations and translations.....	xvi
 Chapter 1: Introduction.....	 1
1. Motivation of the research.....	2
2. Background.....	6
2.1 Defining indigenous people.....	6
2.2 Indigenous people in Guatemala and the rest of Latin America.....	12
2.3 Population policy in Guatemala.....	14
2.4 The Ch’orti area	16
3. Structure of the thesis.....	23
4. Original contributions of the thesis.....	24
References.....	27
 Chapter 2: Diversity in fertility patterns in Guatemala.....	 31
1. Introduction.....	32
1.1 Aims and hypotheses.....	37
1.2 Background.....	38
2. Data and methods.....	42
2.1 Data.....	42
2.2 Methods.....	43
3. Results.....	48
3.1 Fertility trends in Guatemala.....	48
3.2 How do fertility trends correspond between the different surveys?.....	56
3.3 Factors associated with current fertility in Guatemala: analysis of the 2002 census data.....	63
4. Discussion.....	75
5. Conclusion.....	81
References.....	83

Chapter 3: Diversity in reproductive behaviour among ethnic groups in Guatemala: a case study of the Ch’orti area..... 88

- 1. Diversity in family planning use among ethnic groups in the Ch’orti area of Guatemala..... 89
 - 1.1 Introduction..... 89
 - 1.2 Background..... 91
 - 1.3 Data and methods..... 92
 - 1.3.1 Variable measurement and operational definition..... 95
 - 1.3.2 Sample characteristics..... 98
 - 1.3.3 Study design..... 101
 - 1.4 Results..... 102
 - 1.5 Discussion and conclusion..... 111
- 2. Diversity in the use of pregnancy-related care among ethnic groups in Guatemala..... 117
 - 2.1 Introduction..... 117
 - 2.2 Background..... 121
 - 2.3 Data and methods..... 122
 - 2.3.1 Variable measurement and operational definition..... 122
 - 2.3.2 Sample characteristics..... 124
 - 2.3.3 Study design..... 124
 - 2.4. Results..... 125
 - 2.5. Discussion and conclusion..... 132
- References..... 138

Chapter 4: Quality of care and provider bias at family planning services in the Ch’orti area of Guatemala..... 141

- 1. Introduction..... 142
 - 1.1 Defining quality of care..... 143
 - 1.2 Defining the case study..... 146
 - 1.3 Conceptual framework..... 149
 - 1.4 Research questions and objectives..... 151
- 2. Data and methods..... 153
 - 2.1 Case study design and units of analysis..... 153
 - 2.2 Fieldwork design..... 154

2.3	Research instruments.....	156
2.3.1	Exit interviews with patients and clients.....	158
2.3.2	In-depth interviews with service providers.....	160
2.3.3	Focus group discussions in the community.....	165
2.3.4	Direct observation in the waiting room.....	167
2.4	Sample characteristics.....	168
2.5	Analysis.....	169
2.6	Issues relating to reliability, validity and generalisability.....	172
3.	Results.....	176
3.1	Which medical, access and quality-of-care barriers contribute to the low uptake of family planning among the indigenous communities in (the outskirts of town) and around (the <i>aldeas</i>) Jocotán?.....	178
3.1.1	Access.....	178
3.1.1.1	Geographical access.....	178
3.1.1.2	Costs.....	181
3.1.1.3	Administrative access.....	183
3.1.1.4	Cognitive access.....	184
3.1.1.5	Psychosocial access.....	187
3.1.2	Elements in the unit of services received.....	188
3.1.2.1	Choice of methods.....	188
3.1.2.2	Information given to clients.....	190
3.1.2.3	Technical competence.....	195
3.1.2.4	Interpersonal relations.....	199
3.1.2.5	Appropriate constellation of services.....	204
3.1.2.6	Follow-up.....	210
3.1.3	Medical barriers.....	212
3.1.3.1	Outdated contraindications and eligibility barriers.....	212
3.1.3.2	Service provider qualifications and inappropriate management of side effects.....	216
3.1.3.3	Provider bias.....	218
3.1.3.4	Policy or regulatory barriers.....	219
3.2	Does provider bias influence quality of care received by clients at family planning services in Jocotán?.....	221
3.2.1	Service providers' perspective.....	221

3.2.2	Clients' perspective.....	226
4.	Discussion.....	229
4.1	Which are the barriers to uptake of general health care services among the people from the outskirts of town and the <i>aldeas</i> ?.....	229
4.2	Which specific barriers do potential family planning clients face in the Ch'orti area?.....	231
4.3	How has provider bias manifested itself?.....	234
4.4	Are providers biased towards indigenous people from the <i>aldeas</i> or the outskirts of town?.....	242
4.5	What can be learned from family planning service delivery in the Ch'orti area?.....	244
4.6	Methodological weaknesses of this study.....	246
5.	Conclusion.....	249
	References.....	252

Chapter 5: Conclusions..... 257

1.	Summary of central findings.....	261
1.1	Diversity in fertility patterns in Guatemala.....	261
1.1.1	Importance of the subject and value added.....	261
1.1.2	Data, methods and main results.....	263
1.1.3	Limitations of the study.....	265
1.2	Diversity in reproductive behaviour among ethnic groups in Guatemala: a case study of the Ch'orti area.....	266
1.2.1	Importance of the subject and value added.....	266
1.2.2	Data and main results.....	267
1.2.3	Limitations of the study.....	269
1.3	Quality of care and provider bias at family planning services in the Ch'orti area of Guatemala.....	270
1.3.1	Importance of the subject and value added.....	270
1.3.2	Data, methods and main results.....	272
1.3.3	Limitations of the study.....	274
2.	Further research.....	275
3.	Policy implications.....	279
4.	Concluding remarks.....	283
	References.....	285

Annexes.....	286
Short description of the Annexes in Spanish.....	287
Annex I: Age specific fertility rates based on exact exposure, figures for the whole of Guatemala, urban and rural areas.....	289
 Annex II	
Annex II.1: Questionnaire for the household survey in Jocotán, 2001....	292
Annex II.2: Topic guide of the in-dept interviews with service providers on supply of family planning, Jocotán 2001.....	300
 Annex III	
Annex III.1: Letter and referral sheet directed at the health care providers of the governmental health centre and private family planning service providers, Jocotán 2004.....	304
Annex III.2: Exit-interview with patients at the governmental health centre, Jocotán 2004.....	307
Annex III.3: Exit interviews with family planning clients at the governmental health centre, Jocotán 2004.....	315
Annex III.4: Interviews with family planning service providers, Jocotán 2004.....	335
Annex III.5: Discussion guide for focus group discussions with community members, Jocotán 2004.....	345
Annex III.6: Inventory of the family planning services at the governmental health centre, Jocotán 2004.....	351
Annex III.7: Sift questionnaire for the selection of participants in the focus group discussions, Jocotán 2004.....	355
Annex III.8: Hierarchy of coding labels used in the qualitative data analysis, Jocotán 2004.....	356

List of Tables	Page
2.1. Total fertility rates and contraceptive prevalence rates among women of reproductive age currently in union in eight Latin American countries.....	33
2.2. Percentage distribution of women of reproductive age according to demographic characteristic, child health and family planning indicators for eight Latin American countries.....	36
2.3. Total fertility rates between 1987 and 2002 in Guatemala according to type of place of residence.....	48
2.4. P/F ratios for the different surveys and the 2002 census in Guatemala.....	52
2.5. Estimates of the total fertility rate based on age-specific fertility rates from different years before the survey and census 2002.....	55
2.6. Total fertility rates 15-39 obtained by summing up the age specific fertility rates for the age groups 15-19 to 35-39 inclusive, and multiplying by 5.....	58
2.7. Names of the provinces (‘ <i>departamentos</i> ’) referred to by numbers in the maps	66
2.8. Correlation matrix for the exploratory regression analysis.....	71
2.9 Means and standard deviations for the variables used in the regression with values for Jocotán <i>municipio</i>	72
2.10. Results of a linear regression analysis of the natural logarithm (\log_e) of the total fertility rates among <i>municipios</i> (N=331) in Guatemala in 2002.....	73
3.1. Socio-economic and cultural characteristics of ever-married or in union mothers (percentages).....	94
3.2. Socio-economic and cultural differences between different ethnic groups, Jocotán, 2001 (averages and percentages with standard errors in parenthesis).....	100
3.3. Family planning indicators among ever-married or ever-in-union mothers (percentages with standard errors in parenthesis).....	103
3.4. Family planning methods used by ever-married or ever-in-union mothers at the time of the survey according to ethnic classification, Jocotán 2001.....	106
3.5. Reasons for not using family planning among non-users in different	

	ethnic groups: ever-married or ever-in-union mothers, Jocotán 2001	108
3.6.	Intended source of family planning among ever-married or ever-in-union mothers according to ethnic group, Jocotán 2001	109
3.7.	Odds Ratios (with 95 per cent confidence intervals) from a logistic regression analysis of the probability of currently using any contraceptive method among ever-married or in union mothers in Jocotán town, 2001.....	110
3.8.	Pregnancy-related care among ever-married or ever-in-union mothers (percentages with standard errors in parenthesis).....	127
3.9.	Location and attendance during pre- and postnatal care among ever-married or union mothers, Jocotán 2001 (percentages and averages with standard errors).....	129
3.10.	Reasons for not taking up pre- and postnatal care among non-users in different ethnic groups: ever-married or ever-in-union mothers, Jocotán 2001.....	130
3.11.	Odds Ratios from a logistic regression analysis of the probability of given last birth at home as opposed to a clinical setting among mothers in Jocotán, 2001.....	131
3.12.	Odds Ratios from a logistic regression analysis of the probability of taking up pre-natal care during last pregnancy among mothers in Jocotán town, 2001.....	132
4.1.	Research instruments used addressing the first research question.....	157
4.2.	The qualifications and working place of the different service providers interviewed according to type of family planning service, Jocotán 2004 ...	164
4.3.	Demographic, socio-economic and cultural characteristics of the family planning clients and general health care patients interviewed at the exit of the governmental health centre, Jocotán 2004	169
4.4.	Information given about family planning the day of the visit and awareness of availability and side effects of family planning among clients exiting the governmental health centre, Jocotán 2004.....	193
4.5.	Service providers' recommendations and knowledge of side effects and contraindications of family planning methods, Jocotán 2004.....	198
4.6.	Quality of care issues among patients and family planning clients exiting the governmental health centre, Jocotán 2004 (percentages and absolute numbers).....	205

4.7.	Eligibility criteria according to family planning service providers, Jocotán 2004 (order as in Table 4.2).....	217
4.8.	Quality of care indicators as received or perceived by patients exiting the governmental health centre according to ethnic group and place of residence, Jocotán 2004 (averages and percentages).....	228
4.9.	Provider ‘bias’ affecting the different elements of access and quality of care: triangulation by research instrument.....	237-8

Annexes tables

I.1.1.	Age specific fertility rates for four-year periods from the Demographic and Health surveys of 1987, 1995, 1998-99 and the 2002 National Maternal and Child Health Survey: whole of Guatemala.....	289
I. 1.2.	Age specific fertility rates for four-year periods from the Demographic and Health Surveys of 1987, 1995, 1998-99 and the National Maternal and Child Health Survey 2002: urban areas.....	290
I. 1.3.	Age specific fertility rates for four-year periods from the Demographic and Health Surveys of 1987, 1995, 1998-99 and the National Maternal and Child Health Survey 2002: rural areas.....	291

List of figures	Page
1.1. Location of the Ch’orti area.....	17
1.2. Jocotán <i>municipio</i> , with Jocotán as its capital and 33 surrounding <i>aldeas</i> ...	18
1.3. Percentage of indigenous people in the different ‘ <i>municipios</i> ’ of Guatemala.....	20
1.4. Photograph of Ch’orti women in the <i>aldea</i> Pacrén, Jocotán.....	22
2.1. Age specific fertility rates in urban areas of eight Latin American countries.....	34
2.2. Contraceptive prevalence rates (with trend lines) for all and modern family planning methods and total fertility rates for eight Latin American countries	34
2.3. Age specific fertility rates in Guatemala: 1987-2002.....	49
2.4. Age specific fertility rates in urban Guatemala: 1995-2002.....	50
2.5. Age specific fertility rates: estimates from the census and survey 2002 based on births in the last year.....	55
2.6. Age specific fertility rates based on births occurred during different time periods before the 2002 survey.....	56
2.7. Age specific fertility rates for four-year periods from the Demographic and Health Surveys of 1987, 1995, 1998-99 and the 2002 National Maternal and Child Health Survey: whole of Guatemala.....	57
2.8. Age specific fertility rates for four-year periods from the Demographic and Health Surveys of 1987, 1995, 1998-99 and 2002 National Maternal and Child Health Survey: urban areas.....	61
2.9. Age specific fertility rates for four-year periods from the Demographic and Health Surveys of 1987, 1995, 1998-99 and the 2002 National Maternal and Child Health Survey: rural areas.....	62
2.10. Total fertility rate based on births in the last year in each of the <i>municipios</i> of Guatemala, 2002.....	65
2.11. Proportion indigenous people in each of the <i>municipios</i> of Guatemala, 2002.....	67
2.12. Scatter plot of the total fertility rate and the proportion indigenous people in each of the <i>municipios</i> of Guatemala, 2002.....	68

2.13. Proportion illiterate people in each of the *municipios* of Guatemala, 2002..... 69

2.14. Map of the residuals of the ordinary least square regression based on the model predicting fertility for each of the 331 *municipios* in Guatemala..... 74

2.15 The effects of ethnicity and ethnic segregation on fertility..... 79

4.1. Framework of the several elements of quality of care 144

4.2. Framework of the several elements of quality of care: An alternative proposition for the impact of provider bias 152

4.3. Units of analysis, research instruments and perspectives in the analysis 154

4.4. Health services/providers offering family planning in the different communities in and around Jocotán 177

4.5. Map of the *municipio* of Jocotán (Jocotán town and its surrounding *aldeas*), the respective health areas with their covering health supplier and place of origin of the general health care patients interviewed at the exit of the governmental health centre during the study period, Jocotán 2004 (absolute numbers)..... 179

Acknowledgements

First and foremost, I wish to thank my supervisor Dr Andrew Hinde for his continued supervision and support throughout the four years of the thesis. I want to express my gratitude to my second supervisors, Dr Zoë Matthews and Dr Jane Falkingham, who took over in my second year, and my advisor Dr Monique Hennink for their feedback. I also want to thank my colleague Dr Sabu S. Padmadas for his useful comments on the first draft of the first published paper, Dr Roger Ingham for his critical feedback on Chapter Four and Professor John Micklewright for useful comments during the upgrade and viva. In particular, I want to thank my parents and my partner, Michael Kraft for their guidance and moral support in difficult times. Finally, I would like to thank my three-year old daughter Mara, for her patience which was challenged at times and led her to exclaim recently, when looking through a picture-book, ‘Be quiet, I am working on my PhD!’.

This research would not have been possible without the funding of the Economic and Social Research Council and additional funding of the fieldwork through the Parkes Foundation and the Programme Opportunities and Choices. The fieldwork and collection of the data were realised with the help of many people in the Ch’orti area whom I want to thank: the Hermanas de la Anunciación for letting me stay at the dispensary, Dr Carlos Arriola Monasterio, Cozme Amador and Juan Maria Boxus for practical advice on the region, Ingrid Gonzalez, Celia Villa Corta, Shenny Alvarez Vasquez, Arleen and Teresa Amador and the staff and director of the governmental health centre for their enthusiastic participation and allowing me to undertake the study in 2004, Dr Brent Metz for the useful information on the Ch’orti and Laura Kriegstrom for allowing me to use the map on the Ch’orti area. Census data were obtained from the Office for National Statistics in Guatemala City with the help of Mario Anzueto. The Demographic and Health Survey data for 1987, 1995, 1998-99 came from Macro International and the National Maternal and Child Health Survey Data were obtained from the Reproductive Health Unit at the Centre for Disease Control in Atlanta with the help of Dr Paul Stubb.

Definitions, abbreviations and translations

- *Aldeas*: indigenous villages
- APROFAM: Asociación Pro-Bienestar de la Familia, Guatemala's national family planning organisation
- ASFR: Age specific fertility rate
- CI: Confidence interval
- *Comadrona*: Midwife
- *Congregación*: Settlement of indigenous people around a church enforced by the Spanish colonizers
- CPR: Contraceptive prevalence rate or the proportion of married women of reproductive age, including those in consensual unions, who are using a method of contraception
- *Curandero*: Traditional healer
- DHS: Demographic and Health Survey
- FGD: Focus group discussion
- FG: Focus group
- FP: Family planning
- GHC: Governmental health centre
- *Guardian de salud*: Health guardian
- IGSS: Guatemalan Institute of Social Security
- IUD: Intra uterine device
- *Ladino*: non-indigenous population in Guatemala
- *Municipio*: smallest administrative and geographical unit in Guatemala
- NMCHS: National Maternal and Child Health Survey

- *Parcialidad*: Indigenous community designed by the Spanish colonizers
- *Prestadora de salud*: Health care service deliverer
- *Promotor de salud*: Locally trained health worker
- SIAS: Sistema Integrado Atención de Salud (Integral System of Health Care)
- TFR: Total fertility rate
- TBA: Traditional birth attendant
- *Tortilla*: Corn pancake, together with black beans the basic diet of the Mayas in Guatemala
- *Traje*: Traditional dress worn by Mayas in the most traditional rural communities in Guatemala, different for each Mayan language group
- USAID: United States Agency for International Development

Chapter 1

Introduction

1. Motivation of the research

Latin America¹ is compared to many other parts of the world relatively homogeneous: the vast majority of the people speaks Spanish and practises the Catholic religion (Diamond and Linz, 1989) and its population is characterised by *mestizaje* or mixture. The Spanish conquerors interbred intensely with the dominated indigenous² population or imported black African slaves leaving a ‘*mulato*’ (black and white), ‘*zambo*’ (black and Indian) but predominantly ‘*mestizo*’ (Indian and white) mixed race³ (Wade, 1997). With the sexual, spatial and cultural mixing of all these people, a society with dozens of racial categories and ‘labels’ characterised by a complex ethnic composition was created. Until now, a small minority of European-Caucasian descent still dominates the political and economic sectors with some isolated indigenous tribes that remain almost untouched by values of modern society (Wade, 1997).

Today, the ethnic diversity and associated economic, social and political segregation persist, leading to considerable differences in health and development outcomes between different ethnic and social groups in the Latin American society. It has proven a great challenge for international organisations and national governments to identify the most vulnerable groups and their

¹ Latin America is defined here as including all countries south of the United States

² Neutral term translated from the Spanish ‘Indigena’

³ Studies have tended to discuss black people in terms of ‘race’ and Indian people in terms of ‘ethnic group’ because race was considered based on phenotypical biological signifiers whereas ethnicity was rather based on cultural signifiers (Indian identity, clothing, language, place of residence). The difference should not be one of ‘opposition because both ‘indian’ and ‘black’ have aspects of racial and ethnic categorization’ (Wade, 1997 p.39). In this thesis, indigenous people are referred to as an ‘ethnic group’ with specific biological but mainly cultural characteristics.

specific needs and to develop strategies in order to prevent them from lagging behind in terms of human development. Particularly, the indigenous peoples have been identified as disproportionately represented among the poor and vulnerable (de Ferranti et al., 2004). Guatemala has the largest proportion of indigenous people with the majority (70 per cent) of this population living in extreme poverty (Steele, 1994). The different indigenous populations of Guatemala are the Xinka, Garífuna and predominant Mayas who consist of more than 20 Mayan languages groups and whose cultural heritage testifies to one of the greatest pre-Columbian civilisations. Economic exploitation and landlessness among the indigenous are aggravated by population growth; Guatemala has one of the highest levels of fertility in Latin America. The combination of these characteristics makes Guatemala a suitable setting for a case study to investigate ethnic diversity in reproductive behaviour.

For several decades, researchers in different disciplines have been studying the ethnic diversity in reproductive behaviour in Guatemala. Reproductive behaviour expresses itself in fertility levels and factors directly and indirectly affecting fertility such as use of family planning (FP) and modern (biomedical) maternal and sexual health care services. Recent evidence shows how the predominantly rural indigenous population in Guatemala has persistent high fertility levels (Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., 2003) and that the gap between the ethnic groups has widened. Despite a recent drop in the total fertility rate (TFR) according to the latest surveys from 5.0 children per woman in 1998/99 to 4.4 in 2002, the fertility among the indigenous population currently still exceeds 6.0 and has barely declined over the

past 20 years (Instituto Nacional de Estadística et al., 1999; Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., 2003). No studies have been undertaken recently to establish past and recent fertility patterns and which social and ethnic groups drive the rather sudden fertility decline.

Previous studies have highlighted the large diversity in reproductive behaviour between the two main ethnic groups in Guatemala, the Mayas and the *ladinos* (Anderson et al., 1980; Bertrand et al., 2001; Terborgh et al., 1995; Warren et al., 1987; Glei and Goldman, 2000) and even between different Maya groups (Population Council and Frontiers in Reproductive Health, 1999). The recent studies focussed on FP and modern pregnancy-related care and did not consider fertility outcomes. Those studies have struggled to define ethnic groups in Guatemala and focussed on areas with the highest concentration of traditional indigenous groups or were based on surveys that classified ethnic group identifiable through their (Mayan) language or traditional dress. Differences in socio-economic and cultural characteristics and geographical access to modern reproductive health⁴ care services between Mayas and *ladinos* are partly responsible for the observed variations in reproductive behaviour (Ward et al., 1992; Pebley et al., 1996; Terborgh et al., 1995; Bertrand et al., 1999; Glei and Goldman, 2000). In general, geographical access to reproductive health care services remains a barrier to uptake particularly in the rural areas where the majority of the indigenous population lives. As a consequence, the indigenous population has persistent low rates of use of FP and biomedical pregnancy-

⁴ Reproductive health includes FP, maternal and child health, sexually transmitted infections and HIV/AIDS, infertility, post-abortion care and reproductive and sexual rights

related care compared to the *ladino* population (Bertrand et al., 2001; Gleit et al., 2003). However, as in the case of FP, if services are offered in a culturally accepted manner, even the traditional Mayas with historic low demands for FP are willing to travel and pay for services that offer their method of choice (Bertrand et al., 2001; Seiber and Bertrand, 2002). What constitutes this 'pull' towards certain FP services and methods is not fully understood (Seiber and Bertrand, 2002 p.176).

More recent research has highlighted the independent effect of ethnicity on health outcomes and attributes this effect to the negative psychological effect of discrimination and racism or the adoption of detrimental health behaviour through an acculturation process (Amaro and de la Torre, 2002; Krieger, 2000; Williams, 2001; Zsembik and Fennell, 2005). A large proportion of the population in Guatemala, predominantly the indigenous and poor women, are prone to experiencing discrimination at reproductive health care services mainly staffed by (male) *ladinos* (Cosminsky, 1982; Hurtado and Sáenz de Tejada, 2001; Metz, 2001). A discriminative, dismissive attitude of *ladino* staff potentially contributing to low quality of care received by indigenous clients has been suggested in various studies but investigated by few.

During the many visits to the Belgian missionary post in Jocotán between 1991 and 2004, the author observed ethnic divisions within the town of Jocotán and considerable cultural and socio-economic differences between the people from the *aldeas* (indigenous villages) and the people from the town. The research presented in this thesis is an attempt to measure and understand reproductive

behaviour among the different social and ethnic groups in Guatemala. This thesis includes a case study of Jocotán, the capital of the Ch'orti area, exploring diversity in reproductive behaviour among ethnic groups living in close proximity of one another. Most indigenous Maya groups are living in the west and northern highlands of the country whereas the east and south of Guatemala are predominantly *ladino* areas. The Ch'orti area is home to one of the few Maya tribes living in the east of the country and is unique compared to the rest of this part of Guatemala because of its ethnically diverse population. This study has also considered rapid cultural changes in the Guatemalan society in order to define ethnicity. The use of different methodologies and a multitude of data sources and techniques have allowed shedding light on why Guatemala continues to lag behind other Latin American countries in terms of its demographic transition, the extent of ethnic diversity in reproductive health behaviour among ethnic groups and which aspects of quality of care at health services accessible to the indigenous population could explain their low use of contraception.

2. Background

2.1 Defining indigenous people

Defining indigenous peoples in Latin America is highly contested because of its political sensitivity and a history of governments' strategies to minimise their power and legitimacy. As a consequence no universal definition exists and indigenous people have rejected several attempts to define them. However, the

International Labour Convention 169 of the UN High Commissioner of Human Rights has aimed to define indigenous people⁵, emphasising the right of self-identification, and is often used as a reference.

Originally, indigenous people were referred to as ‘Indios’ and the term was used as an administrative category since they had the obligation to pay taxes or tribute in labour or goods whereas the *ladinos* did not have such obligations (Harris, 1995). The term was also used as a census category in order to count the indigenous labour force (Wade, 1997). When the Spanish led by Hernan Cortes arrived in 1521, more than 20 rivalling Maya tribes inhabited this part of the Americas. The Spanish presence not only meant political repression and economic exploitation but also, with disastrous consequences, the introduction of unknown diseases such as smallpox, measles and mumps to which the indigenous Mayas were not immune (Cook and Lovell, 1992). Fifty years after their arrival, the Spanish managed to reduce native numbers to one tenth of their original numbers. The fact that the indigenous people of Guatemala are now representing half of the country’s population after five centuries of conquest shows their strong sense of survival (Lovell and Lutz, 1994).

Guatemala is often described as one of the most stratified and segregated countries in Latin America (Steele, 1994; de Ferranti et al., 2004). Originally, the

⁵‘Indigenous communities, peoples and nations are those which having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the society now prevailing in those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop, and transmit to future generations their ancestral territories, and their identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems’ (UN Doc.No E/C.N.4/Sub.2/1986/87).

Spanish colonizers made efforts to prevent too much mixing and maintain segregation between the ethnic groups. However, ‘*metizaje*’ did take place but in different degrees. So all *mestizos* were not of mixed blood as an Indian who left his ethnic origin behind by moving out of the Indian community and dropping indigenous dress and language, could equally be considered a *mestizo* (Wade, 1997). Several scholars argue that the Guatemalan society was based on socio-racial stratification and ‘caste’ (‘*sociedad de castas*’) and that strong social barriers existed between Indians and *mestizos* (*ladinos*) (Gillin, 1951; Tumin, 1952). Relations between *ladinos* and Indians have been described as discriminative and paternalistic with interactions between the two ethnic groups being always between ordinates (*ladinos*) and subordinates (indigenous) (van de Berghe, 1967). Indigenous people who become wealthier and better educated are likely to be considered a threat in those economic and political sectors traditionally dominated by *ladinos* (Colby and van de Berghe, 1961). However, an indigenous person moving up the social ladder to become part of the lower (i.e. more ‘Indian-looking’) *ladino* class, could retain some of his or her indigenous traits and likewise, his or her culture might change while the ethnic boundary persists (Wade, 1997). Finally, development and modernization do not lead to the disappearance of ethnic segregation and an integrated *mestizo* society as the border between the ethnic groups transcends socio-economic divisions (Wade, 1997)

The current Guatemalan population is composed of a *ladino* and a large indigenous population who has, despite repression and subjugation first by Spanish colonizers and then by a *ladino*-dominated society, succeeded in

maintaining a separate cultural identity (Pebbley et al., 2005). However, all ethnic groups descend from the indigenous population and the Spanish colonizers and therefore belong to the same gene pool (Barry, 1992). 'Indigenous' identity is historically very closely linked to the affiliation with one's rural community, characterised by its own language, customs or dress (Smith, 1990b; Watanabe, 1995). As a consequence, ethnicity was commonly defined by cultural characteristics such as spoken or known languages, use of traditional dress, place of origin, or in some studies self-identification (Harris, 1995; The World Bank, 1993). However, these definitions of ethnicity often place people with very different cultural characteristics in the same ethnic group; people can have multiple identities and will identify themselves with a different ethnic background according to with whom they interact (Wade, 1997).

Most of the previous censuses and surveys in Guatemala also classified people into ethnic groups according to objective characteristics such as dress and language as observed by the interviewer (Robles, 1993). People who spoke an indigenous language and wore traditional dress were classified as indigenous; everyone else was classified as *ladino*. Yet, this type of definition is considered largely unsatisfactory in the Guatemalan context and causes estimates of the proportion of indigenous people in the Guatemalan population to differ greatly from one study to the other (Barry, 1992). A further challenge to the would-be classifier of ethnic groups is the process of *ladinisation*, or 'the tendency of Maya people to acculturate by becoming *ladinos* and dropping indigenous cultural traits or traditions (language, dress, religion and customs)' (Wearne, 1994 p.7). This process is reinforced by young people wanting to move up the

social ladder and integrate into the national economical structure and for whom wearing the *traje* (traditional dress) is too high an economic cost. The young generations are therefore more likely to be bi-lingual and to abandon objective characteristics (Maya dress and language) earlier than other features of Maya life and culture. Thus, the people classified as *ladinos* include a small elite of European descent, a large *mestizo* group and poor indigenous people who no longer wear traditional dress (Barry, 1992). Despite the fact that *ladinos* are often described as being in a socio-economically better position, many *ladinos* are as poor, landless and unemployed as their indigenous counterparts, in other words they are ‘socially de-ethnicized Mayas’ (Wearne, 1994).

Official numbers have tended to underestimate the proportion of indigenous people in Guatemala (Early, 1974). Despite a rapid population increase, the official number of Mayas represented a declining proportion of the total Guatemalan population, from 69 percent according to the 1880 census to 50 percent in the 1964 census to 37 percent according to the 1989 census. It is questionable whether this is a reflection of the successful assimilation policy (the discouragement of indigenous language use and traditional dress and encouragement of the adoption of the *ladino* culture) (Smith, 1990a) or whether this has been a deliberate manipulation of the statistics by governments in order to render the Mayas a minority group (Lovell and Lutz, 1994). Diverging current estimates of the proportion of indigenous people in Guatemala between 70 per cent according to the Maya Language Academy and around 30 per cent according to the latest survey of 2002 reflect this complexity of definition and

political orientation (Barry, 1992; Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., 2003).

Recently, the classification of ethnicity has received greater attention, helped by indigenous leaders who have attempted to get Indians and their values recognised and create a Pan-Mayan identity (Cojti Cuxil, 1996; Pebley et al., 2005). Even though the classification of ethnicity in the last National Maternal and Child Health Survey (NMCHS) of 2002 was still relying on the observation of the interviewer, more extensive questions were asked about Maya language known and spoken in the household. The 1995 Guatemalan Survey of Family Health and the latest census of 2002 however classified ethnic groups based on self-identification. The census 2002 formulated the question on ethnicity as follows: 'To which ethnic group do you belong?'. There were five possible answer categories: Maya; Xinka; Garífuna; *ladino* and other. The census also included a question on known and spoken languages with family members. The Maya category contained 21 different subcategories for each of the different Maya languages. The census 2002 classified 40 percent of the population as indigenous. This number still underestimates the proportion of indigenous possibly because when asked in this form, discrimination and social prejudices lead individuals to deny any affiliation with their native origin (The World Bank, 1993). In a town such as Jocotán where ethnic groups are not marked by language and traditional dress, self-identification seemed the most appropriate way of ethnic classification. The question 'How do you consider yourself? Indigenous or *ladino*?' prompted many women spontaneously to suggest a third category of 'mixed' ethnicity. However, according to one scholar, 'the question

‘Where are you from?’ remains the ethnic question *par excellence*’ (Wade, 1997 p.18). In this study a dual approach was adopted considering the place of birth when classifying ethnic groups.

2.2 Indigenous people in Guatemala and the rest of Latin America

The forty million indigenous people living in Latin America are mainly concentrated in the countries Bolivia, Peru, Ecuador, Mexico and Guatemala. They are the descendants of the three pre-Columbian cultures: the Mayas, the Incas and the Aztecs and have retained large parts of their culture, language and traditions. A report published by the World Bank shows that the vast majority of the indigenous population in Latin America and the Caribbean lives below the poverty line whereas this percentage represents less than half of the non-indigenous population (The World Bank, 1993). Another World Bank Report on ‘Inequality in Latin America and the Caribbean’ finds that it is one of the regions of the world with the greatest inequalities with respect to incomes and access to water, electricity and health and educational services that are still mainly concentrated in urban areas (de Ferranti et al., 2004). Those studies suggest that the inequalities between ethnic groups cannot solely be explained by socio-economic differences but that ‘ethnic origin’ has an independent effect through indicators such as access to services and the quality of care received at these services.

Using the Gini-coefficient⁶ of inequality in the distribution of income and consumption, Guatemala has a score of 0.60, indicating one of the most unequal socio-economic distributions in the world. Over half of the Guatemalan population lives in poverty, one fifth is classified as extremely poor and Guatemala has some of the worst health indicators in Latin America in terms of life expectancy (65 years for men), infant mortality (44 per 1,000 live births), and chronic malnutrition (50 per cent among children below 5 years of age) (World Health Organisation, 2005). Evidence from a recent study in Guatemala shows that ethnic and social inequalities have increased over the past 20 years even if this was a period of economic growth (Beckett and Pebley, 2003). The authors conclude that factors related to discrimination in the economic sector are responsible for the relative deprivation of the indigenous compared to the *ladino* population. The persistent relative deprivation of the indigenous population has strong historical and political roots. The Latin-American countryside is characterised by the co-existence of *mini*- and *latifundia* (small- and large-hold farms or 'fincas'), typically in hands of a *ladino* minority and where the indigenous people are used as cheap labour. This economic structure, accompanied by the extremely unequal distribution of the land⁷ in Guatemala (Agency for International Development, 1982) is for many scholars the reason for the long civil war (1960-1996) and continue to be the source of political

⁶ The Gini coefficient is a measure of inequality developed by the Italian statistician Corrado Gini and published in his 1912 paper "Variabilità e mutabilità". It is usually used to measure income inequality, but can be used to measure any form of uneven distribution. The Gini coefficient is a number between 0 and 1, where 0 corresponds with perfect equality (where everyone has the same income) and 1 corresponds with perfect inequality (where one person has all the income, and everyone else has zero income).

⁷ In the rural areas less than 2% of the population owns at least 65% of the land (Ghosh, 2005)

insecurity and extreme social inequality in the country (Barry, 1992; Lovell, 2000; Smith, 1990c; Steele, 1994; Wearne, 1994).

2.3 Population policy in Guatemala

According to the Census of 2002, Guatemala has a population of 12.3 million people and an annual population growth rate of 2.8 per cent. When in 1970, the Ministry of Health installed the Integrated Office of Information, Education and Training, it promised to deliver FP services in rural areas. Despite the fact that Guatemalan governments accepted international funding from USAID for population activities, policies did not materialise until the end of the 1990s (Bertrand et al., 2001). Attempts to install FP programmes met resistance and were prevented by Catholic and Protestant religious groups; leftist movements of policy makers and universities and the ethnic divisions and political unrest during the civil war (Santiso-Galvez and Bertrand, 2004). APROFAM (Asociación Pro-Bienestar de la Familia), the national private FP organization, and many non-governmental organizations have, despite religious resistance, governmental reluctance and lack of support, persisted in providing contraception since 1965. However, faced with growing demand and reduced financial resources, APROFAM introduced major cost-recovery moves which made it self-sufficient but mainly accessible to the urban, predominantly *ladino* population (Santiso-Galvez and Bertrand, 2004).

The Integral System of Health Care (SIAS) set up in 1997, which incorporated private and public health organizations in order to improve access

to health care services in the rural (more indigenous) areas changed little in terms of access to FP services in those areas. However, the creation of the first Reproductive Health Programme in January 2001 and the Social Development and Population Law effective from October 2001 made reproductive health part of a national policy and instigated several initiatives to improve access to FP services. Previous research shows that where access to services has improved, quality of care and medical barriers are increasingly determining uptake and continued use of contraception (Bertrand et al., 1995; Bruce, 1990; Reproductive Health Unit of the Ministry of Public Health, 1992).

Despite embracing FP as part of a national reproductive health programme the current Guatemalan government still faces major challenges. Questions remain such as why is fertility so high and use of FP so low? Why do ethnic divisions remain in the uptake of modern reproductive health care services when geographical access to services is equal? Which quality of care issues prevent indigenous people from taking up services accessible to them? In order to get a more detailed picture, the main part of this thesis has focussed on an understudied area in the north-eastern region of Guatemala. This area is ethnically very diverse and reflects current social changes where indigenous people have increasingly abandoned Maya traditions such as language and *traje*.

2.4 The Ch'orti area

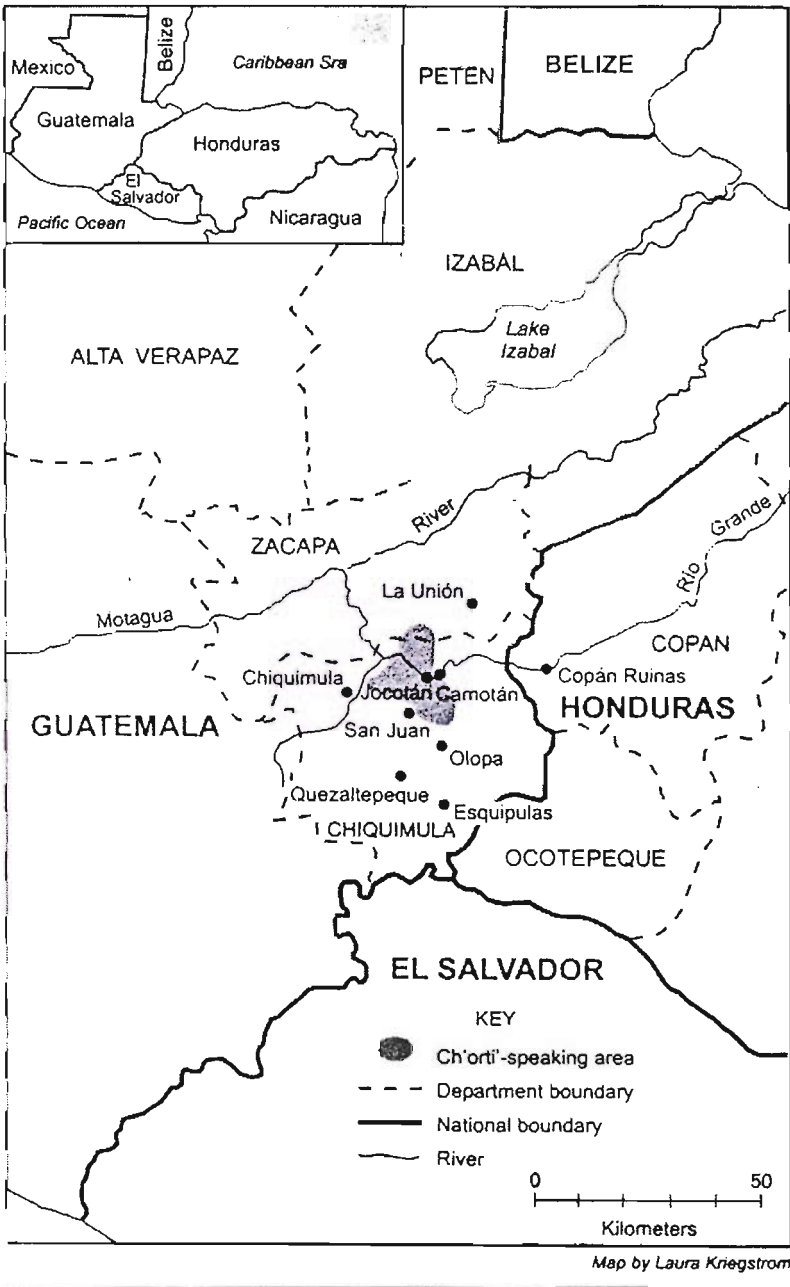
The town of Jocotán is situated in the north-eastern region⁸ of Guatemala and is the capital of Jocotán, one of the five *municipios* (Jocotán, Camotán, Olopa, La Unión and San Juan Ermita) that make up the 'Ch'orti area' (Figure 1.1). Most indigenous groups inhabit the western and the northern highlands of the country whereas the 'Ch'ortis' are located in the east and surrounded by a *ladino* population. The whole Ch'orti area covers a population of approximately 100,000 people of which 75,000 are considered indigenous Ch'orti (Metz, 2001). The Ch'ortis are mainly concentrated in the *aldeas* (indigenous villages) of the *municipio* of Jocotán, close to the Honduran border in the county of Chiquimula with a population of approximately 40,000 (Census 2002). For this reason, in the rest of this thesis, the 'Ch'orti area' will be referred to as the town Jocotán and its 33 surrounding *aldeas* (Figure 1.2).

Jocotán *municipio* is characterised by a high concentration of indigenous people. Figure 1.3 shows the percentage of indigenous people in each of the *municipios* in Guatemala. There is a historic reason for the very high concentrations of indigenous people in the northern highlands of Guatemala. In those areas, the land is particularly infertile and the climate is colder than in the rest of the country. The Spanish conquerors considered them of little economic value and unattractive. Many of the indigenous communities fled the repression of the Spanish colonisers and settled in those areas (Lutz and Lovell, 1990).

⁸ Guatemala is divided into eight regions (Northeastern, Northwestern, South, Central, Metropolitan, Petén, Southwestern and Southeastern); 22 departments and 331 *municipios*, the smallest administrative unit

Figure 1.1

Location of the Ch'orti area



Source⁹: Metz, B. (2001) Politics, population and family planning in Guatemala: Ch'orti Maya experiences. *Human Organization* 60, 259-71.

⁹ Reproduced with the permission of the journal Human Organisation, the author Brent Metz and the maker of the map, Laura Kriegstrom.

Figure 1.2

Jocotán municipio, with Jocotán as its capital and 33 surrounding aldeas



Jocotán town has a weekly market that attracts the indigenous people from the surrounding *aldeas* and there are many shops, a church, a bank, a post office, a radio station and several schools. Modern health care services in Jocotán town consist of the governmental health centre (GHC), the dispensary ‘Bethania’ and several private doctors’ clinics and pharmacies. One medical director, one doctor, one professional nurse and several auxiliary nurses staff the GHC which has in-patient facilities. The dispensary ‘Bethania’ is a non-governmental organization established by Belgian nuns in 1958 that has been incorporated as one of the health providers (*Prestadoras de Salud*) in the System of Integrated Health Care (SIAS). It is staffed by a medical director, two medical students, one

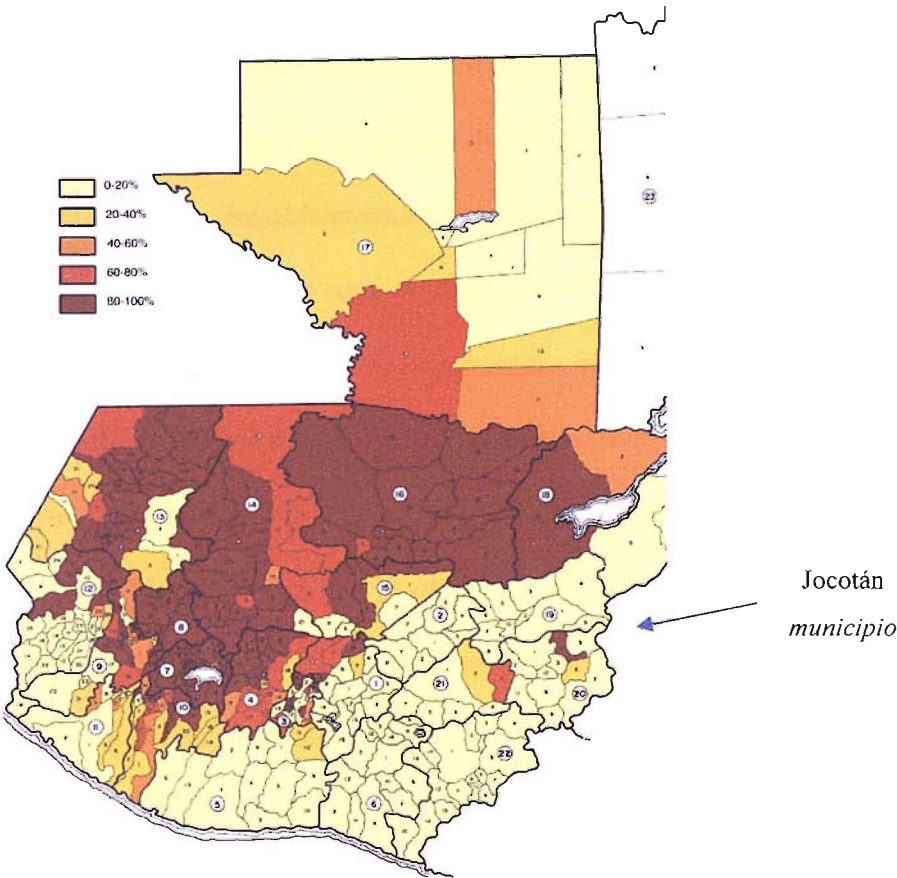
professional nurse and several auxiliary nurses and equally has in-patient facilities. In order to access a (private or governmental) hospital, one has to go to Chiquimula, where the governmental hospital operated by the Guatemalan Institute of Social Security (IGSS) is located, or Zacapa, both at one hour by car. Two *aldeas* (Tunuco Arriba and Guareruche) in Jocotán *municipio* have a health post staffed by an auxiliary nurse. People from the surrounding *aldeas* have access to these health posts which offer very limited services. The GHC and ‘Bethania’ in Jocotán send out their doctors on monthly visits but many *aldea* patients are forced to walk several hours to Jocotán in case of emergency. For local health care services, the people from the *aldeas* rely on household remedies or consult the trained health worker (*promotor de salud*), the health guardian (*guardian de salud*), the traditional healer (*curandero*) or the traditional birth attendant (*comadrona*).

Catholicism is the predominant religion in Jocotán *municipio*; however, increasing numbers of people have joined the Evangelical Churches. In the more traditional and remote *aldeas*, the women are still wearing their colourful traditional dresses and the people are speaking the Ch’orti language. Like their ancestors, the Ch’orti’s diet mainly consists of black beans and *tortillas*¹⁰. Malnutrition among infants and mothers is very common in the *aldeas* and child mortality is believed to be very high. One study using data from the System of Integrated Health Care (SIAS), reported an infant mortality rate of 153 deaths per

¹⁰ Corn pancakes and together with black beans the traditional and main diet of the indigenous Mayas in Mexico and Guatemala. The Mayas who, according to their holly transcript Popol Vuh, called themselves ‘hombres de maíz’ or ‘men of corn’ considered corn the subsistence and creation material.

1000 live births from a sample of 108 mothers from 18 Ch’orti communities (Metz, 2001).

Figure 1.3
Percentage of indigenous people in the different ‘municipios’ of Guatemala



Source: Census 2002 (Institute of National Statistics)

In 1991, Jocotán had an irregular water and electricity supply. Most roads were unpaved and access to the nearest large city Chiquimula was via an earth road. Most *aldeas* around Jocotán were only accessible via narrow walking paths. The majority of the *aldeas* around Jocotán had neither water nor electricity supply. In 2001, the year of the first field trip and the author’s sixth visit to the area, those conditions had changed in Jocotán *municipio*. Access to Jocotán had

substantially improved with the construction of the highway to Honduras and hourly public transport was available to Chiquimula or Guatemala City. Most roads in Jocotán were paved, most households had a television and telephone and an increasing number of families owned a car. Several internet cafés had opened by 2004, the year of the second field trip. Even though access to the *aldeas* had also improved dramatically with the construction of roads and bridges and many *aldeas* have now water and electricity supply, access to health care services remains difficult for a large part of the Ch'orti population. Living conditions remain harsh in the *aldeas* where most people live in huts, with an earth floor and corrugated iron or palm roof. At the time of the first field trip in September 2001 famine had struck the Ch'orti area because of persistent drought and plummeting international coffee prices. Most people who live in the *aldeas* are subsistence farmers or landless labourers. Their family incomes vary monthly depending on the harvest or available labour on the 'fincas' and often do not exceed 500 quetzals (65 US dollars). Many people from the *aldeas* have opted for a life in the town so that Jocotán has grown from just over 1700 people in 1991 to nearly 5000 inhabitants in 2004.

In 2004, Jocotán town had grown into five districts of which two had been added over the past ten years along with several small pockets of households. Through the influx of migrants from the *aldeas*, even greater socio-economic and cultural divisions than before now mark Jocotán-town. The immigrants from the *aldeas* do not have any external characteristics that distinguish them from the people from the town (nobody wears a traditional dress or openly speaks Ch'orti); however, they retain some of their customs and beliefs

and are categorised by people from the town by their place of origin ('from the *aldeas*'). A large part of the Jocotán residents are now able to afford a much higher standard of living often thanks to the salaries of family members working in the United States. The remittance of emigrants from Jocotán town, however, seems to create great economic dependence and inactivity among families left behind. Also, the absence of the head of the household puts great stress on the social cohesion of the family union, often leading to marital disruption. Immigrants from the *aldeas* live on the outskirts of town in equal or worse living conditions than in their *aldea* but with geographical access to public services.

Figure 1.4: Photograph of Ch'orti women in the aldea Pacrén, Jocotán



This study will investigate whether the diversity in reproductive behaviour manifested at the national level among ethnic groups classified on the basis of language and dress extends to the geographical scale of a *municipio* and

in a context where the distinction of ethnic groups is non-apparent. The great ethnic and accompanying socio-economic segregation and the loss of traditional outward markers of ethnicity observed in Jocotán *municipio* is very typical for Guatemala and make it an ideal setting to address the research questions identified in the previous and following paragraphs. However, each *municipio* has its own social and cultural independent organization. As Sol Tax, an ethnographer with extensive fieldwork experience in Guatemala, put it: ‘studies in the ethnology of Guatemala must begin with studies of the cultures of individual *municipios*’ (Tax, 1937 p.425).

3. Structure of the thesis

This thesis is divided into five chapters and contains four papers. Chapter Two sets the context and analyses fertility trends in Guatemala in general. This paper studies past and recent fertility patterns in urban and rural areas of Guatemala and explores to which extent cultural diversity and in particular ethnic segregation and indigenous deprivation in the country are factors preventing the smooth progress of the fertility transition.

Chapter Three contains two papers presenting the findings of two household surveys undertaken by the author. One survey took place in 2001 in Jocotán and a smaller survey in 1994 in two nearby indigenous villages (*aldeas*), Tesoro Abajo and Pacrén. Both surveys investigate reproductive behaviour manifested through the use of FP and modern pregnancy-related care services among different ethnic groups. In the first paper, two research questions are

addressed. First, how does contraceptive behaviour differ among the ethnic groups in the Ch'orti area? Second, how can these differences be explained? In the second of the two papers three research questions are addressed. First, which types of pregnancy-related care services are being used by the various ethnic groups within the town of Jocotán? Second, which types of services of pregnancy-related care are used in the nearby indigenous villages? Lastly, how can these differences, if any, be explained? The findings in those two papers are compared with the Guatemalan 1998-99 Demographic and Health Survey (DHS) in order to see to which extent our results converge with the data for the north-eastern region.

Chapter Four is based on the author's fieldwork in 2004 and investigates quality of care issues at FP services in Jocotán. The fourth paper was designed to answer two research questions that arose from the 2001 survey: first, which quality-of-care issues pose barriers to uptake of FP among the different predominantly indigenous communities in (the outskirts of town) and around (the *aldeas*) Jocotán? Second, does provider bias influence quality of care of services received by clients at the GHC in Jocotán? Chapter Five includes concluding remarks building on previous research and aims to provide scholars and governmental bodies with strategies for further research.

4. Original contributions of the thesis

This thesis is original in its use of a multitude of research methods, techniques and data sources. Primary as well as secondary data have been collected and

quantitative and qualitative methods have been used to provide new insights into reproductive behaviour in Guatemala at the national level as well as local level through the case study of the Ch'orti area. Each chapter has individually enhanced the knowledge of ethnic diversity in reproductive behaviour in Guatemala and had its own original contribution.

Hardly any studies have been recently undertaken to investigate fertility levels in Guatemala. The first paper of this thesis (Chapter Two) contributes to a more in-depth understanding of diverging fertility patterns between population groups in Guatemala and suggests an explanation for the late start and slow progress of the fertility transition in Guatemala compared to the rest of Latin America.

The two papers based on the first fieldwork data of 2001 (Chapter Three) illustrate the extent of ethnic diversity in reproductive health behaviour on the geographical scale of a *municipio*. The case study uses the alternative approach of classifying ethnic groups based on self-identification and place of birth in an understudied area of Guatemala generally considered *ladino*. The Ch'orti's living conditions are unique in that they are isolated from the other Maya communities in the west of the country. The Ch'ortis were not involved in the contra-insurgency through the civil war and were mostly spared from atrocities (Metz, 2001). Their distrust towards *ladinos* is primarily based on economic exploitation rather than political violence as in the western part of Guatemala. As the other Maya communities, they have their own customs and beliefs. The composition of the population in the Ch'orti area vividly reflects the ethnic segregation and

cultural diversity in Guatemala and the difficulty of classifying ethnic groups. These two papers also help to assess to which extent recent population policies have been successful in reaching the indigenous communities.

The fourth paper in Chapter Four is also based on the case study but on data collected in 2004. It contributes to an understanding of the quality of care issues at FP services available and accessibility to indigenous people in Guatemala. It aims to address some of the questions raised in previous studies of which are the ‘pull’ factors to FP services among motivated indigenous clients and helps to identify their reproductive health needs. Furthermore, it investigates the often suggested but rarely investigated sensitive issue of provider bias among staff at FP services accessible and available to indigenous clients. Lastly, it contributes to theory building and aims to clarify certain concepts and aspects of quality of care.

Finally, this thesis hopes to contribute to a greater understanding of the reproductive health needs among the most vulnerable population groups in Guatemala. A careful attempt to formulate policies will be included in the conclusions so that service providers and stakeholders in Jocotán, who all enthusiastically contributed to this study, and ultimately clients will benefit from this research.

References

- Agency for International Development (1982). *Tierra y trabajo en Guatemala, una evaluación*. Guatemala: AID.
- Amaro H. and de la Torre A. (2002). Public health needs and scientific opportunities in research on Latinas. *American Journal of Public Health* 92(4), 525-529.
- Anderson J.E., Morris L., Pineda A. and Santiso R. (1980). Determinants of fertility in Guatemala. *Social Biology* 27(1), 20-35.
- Barry T. (1992). *Inside Guatemala*. New Mexico: The Inter-Hemispheric Education Resource Centre.
- Beckett M. and Pebley A.R. (2003). Ethnicity, language, and economic well-being in rural Guatemala. *Rural Sociology* 68(3), 434-458.
- Bertrand J.T., Guerra de Salazar S., de Mazariegos L., Salanic V., Rice J. and Kolars Sow C. (1999). Promoting birthspacing among the Maya-Quiche of Guatemala. *International Family Planning Perspectives* 25(4), 160-167.
- Bertrand J.T., Hardee K., Magnani R.J. and Angle M.A. (1995). Access, quality of care and medical barriers in family planning programs. *International Family Planning Perspectives* 21(2), 64-69+74.
- Bertrand J.T., Seiber E. and Escudero G. (2001). Contraceptive dynamics in Guatemala. *International Family Planning Perspectives* 27(3), 112-118.
- Bruce J. (1990). Fundamental elements of the quality of care: A simple framework. *Studies in Family Planning* 21(2), 61-91.
- Cojti Cuxil D. (1996). The politics of Maya revindication. In Fischer E.F. and Brown R.M. (Eds.), *Maya cultural activism in Guatemala* (pp. 19-50). Austin: University of Texas Press.
- Colby B. and van de Berghe P. (1961). Ethnic relations in south-eastern Mexico. *American Anthropologist* 63, 772-792.
- Cook N.D. and Lovell G.W. (1992). *'Secret judgements of God': Old world disease in colonial Spanish America*. Norman and London: University of Oklahoma Press.
- Cosminsky S. (1982). Childbirth and change: a Guatemalan study. In McCormack C.P. (Ed.), *Ethnography of fertility and birth* (pp. 195-219). New York: Academic Press.
- de Ferranti, D., Perry, G. E., Ferreira, F. H. G., and Walton, M. (2004). Inequality in Latin America and the Caribbean: Breaking with history? Report number: 28989. World Bank Latin America and Caribbean Studies.

- Diamond L. and Linz J.J. (1989). Politics, society and democracy in Latin America. In Diamond L., Linz J.J. and Lipset S.M. (Eds.), *Democracy in developing countries: Latin America*. Boulder: Lynne Rienner Publishers.
- Early J.D. (1974). Revision of *Ladino* and Maya census populations of Guatemala, 1950 and 1964. *Demography* 11(1), 105-117.
- Ghosh, Jayati (2005). Inequality and inadequate policies: A looming crisis in Guatemala. www.globalpolicy.org. Accessed on: 22-8-2005
- Gillin J. (1951). *The culture of security in San Carlos: A study of a Guatemalan community of Indians and Ladinos*. New Orleans: Middle American Research Institute, Tulane University.
- Glei D.A. and Goldman N. (2000). Understanding ethnic variation in pregnancy-related care in rural Guatemala. *Ethnicity and Health* 5(1), 5-22.
- Glei D.A., Goldman N. and Rodriguez G. (2003). Utilization of care during pregnancy in rural Guatemala: Does obstetrical need matter? *Social Science and Medicine* 57(12), 2447-2463.
- Harris O. (1995). Ethnic identity and market relations: Indians and *mestizos* in the Andes. In Larson B., Harris O. and Tandeter E. (Eds.), *Ethnicity, markets and migration in the Andes: At the crossroads of history and anthropology*. Durham: Duke University Press.
- Hurtado E. and Sáenz de Tejada E.S. (2001). Relations between government health workers and traditional midwives in Guatemala. In Huber B.R. and Sandstrom A.R. (Eds.), *Mesoamerican healers*. Austin, TX: University of Texas Press.
- Instituto Nacional de Estadística, Ministerio de Salud Pública y Asistencia Social, U.S.Agency for International Development (USAID), United Nations International Children's Fund (UNICEF), Fondo de Población de las Naciones Unidas (FNUAP), and Macro International (1999). Guatemala, Encuesta Nacional de Salud Materno-Infantil 1998-1999. Measure/DHS+. Calverton, Maryland: Macro International.
- Krieger N. (2000). Discrimination and health. In Berkman L.F. and Kawachi I. (Eds.), *Social Epidemiology* (pp. 36-75). New York: Oxford University Press.
- Lovell G.W. (2000). *A beauty that hurts: Life and death in Guatemala*. Austin: University of Texas Press.
- Lovell G.W. and Lutz C.H. (1994). Conquest and population: Mayan demography in historical perspective. *Latin American Research Review* 29(2), 133-140.
- Lutz C.H. and Lovell G.W. (1990). Core and periphery in colonial Guatemala. In Smith C.A. (Ed.), *Guatemalan Indians and the state, 1540-1988* (pp. 35-51). Austin: University of Texas Press.

Metz B. (2001). Politics, population and family planning in Guatemala: Ch'orti Maya experiences. *Human Organization* 60(3), 259-271.

Ministerio de Salud Pública y Asistencia Social (MSPAS), Instituto Nacional de Estadística (INE), Universidad del Valle de Guatemala (UVG), Centros para el Control y Prevención de Enfermedades (CDC), Agencia de los Estados Unidos para el Desarrollo Internacional (USAID), Agencia Sueca de Cooperación para el Desarrollo Internacional (ASDI), Proyecto de Apoyo a la Reforma del Sector Salud (APRESAL/UE), Programa de las Naciones Unidas para el Desarrollo (PNUD), Fondo de las Naciones Unidas para la Infancia (UNICEF), Fondo de Población de las Naciones Unidas (FNUAP), Proyecto POLICY II, and CARE Guatemala (2003). Guatemala, Encuesta Nacional de Salud Materno-Infantil 2002. Guatemala City, Guatemala: Ministerio de Salud Pública y Asistencia Social.

Pebley A.R., Goldman N. and Robles A. (2005). Isolation, integration, and ethnic boundaries in rural Guatemala. *The Sociological Quarterly* 46, 213-236.

Pebley A.R., Goldman N. and Rodriguez G. (1996). Prenatal and delivery care in childhood immunization in Guatemala: Do family and community matter? *Demography* 32(2), 231-247.

Population Council and Frontiers in Reproductive Health (1999). Lesson learned in the delivery of reproductive health services in the Guatemalan Highlands. INOPAL III Project. Washington, D.C.: Population Council.

Reproductive Health Unit of the Ministry of Public Health (1992). An assessment of medical barriers to family planning programs in Guatemala. Guatemala: Ministry of Health.

Robles, A. (1993). Child health among indigenous populations of Bolivia, Guatemala, and Chile. Thesis/Dissertation. University of Pennsylvania, Philadelphia, PA.

Santiso-Galvez R. and Bertrand J.T. (2004). The delayed contraceptive revolution in Guatemala. *Human Organization* 63(1), 57-67.

Seiber E.E. and Bertrand J.T. (2002). Access as a factor in differential contraceptive use between Mayans and *Ladinos* in Guatemala. *Health Policy and Planning* 17(2), 167-177.

Smith C.A. (1990a). *Guatemalan Indians and the state: 1540-1988*. Austin, Texas: University of Texas Press.

Smith C.A. (1990c). The militarization of civil society in Guatemala: Economic reorganisation as a continuation of war. *Latin American Perspectives* 17(4), 8-41.

Smith C.A. (1990b). Origins of the national question in Guatemala: A hypothesis. In Smith C.A. (Ed.), *Guatemalan Indians and the state: 1540-1988* (pp. 72-95). Austin: University of Texas Press.

- Steele D. (1994). Guatemala. In Psacharopoulos G. and Patrinos H.A. (Eds.), *Indigenous people and poverty in Latin America: An empirical analysis*. (pp. 105-140). Washington D.C.: The World Bank.
- Tax S. (1937). The *municipios* of the mid-western Highlands of Guatemala. *American Anthropologist* 39(3), 423-444.
- Terborgh A., Rosen J.E., Santiso-Galvez R., Terceros W., Bertrand J.T. and Bull S.E. (1995). Family planning among indigenous populations in Latin America. *International Family Planning Perspectives* 21(4), 143-149.
- The World Bank (1993). *Indigenous people and poverty in Latin America: An empirical analysis*. Washington, D.C.: The World Bank.
- Tumin M.M. (1952). *Caste in a peasant society*. New Jersey: Princeton University Press.
- van de Berghe P. (1967). *Race and racism*. New York: John Wiley and Sons.
- Wade P. (1997). *Race and ethnicity in Latin America*. London and Sterling, Virginia: Pluto Press.
- Ward V.M., Bertrand J.T. and Puac F. (1992). Exploring socio-cultural barriers to family planning among Mayans in Guatemala. *International Family Planning Perspectives* 18(2), 59-65.
- Warren C.W., Monteith R.S., Johnson J.T., Santiso-Galvez R., Guerra F. and Oberle M.W. (1987). Use of maternal-child health services and contraception in Guatemala and Panama. *Journal of Biosocial Science* 19, 229-243.
- Watanabe J. (1995). Unimagining the Maya: Anthropologists, others, and the inescapable hubris of authorship. *Bulletin of Latin American Research* 14(1), 25-45.
- Wearne, Phillip (1994). *The Maya of Guatemala*. Manchester: Manchester Free Press.
- Williams D.R. (2001). Racial variation in adult health status: patterns, paradoxes and prospects. In Smelser N.J., Wilson W.J. and Mitchell F. (Eds.), *America becoming: racial trends and their consequences* (pp. 371-410). New York: National Academy Press.
- World Health Organisation (2005). Guatemala.
<http://www.who.int/countries/gtm/en/>. Accessed on: 5-9-2005
- Zsembik B.A. and Fennell D. (2005). Ethnic variation in health and the determinants of health among Latinos. *Social Science and Medicine* 61, 53-63.

Chapter 2

Diversity in fertility patterns in Guatemala

1. Introduction

Fertility levels in Guatemala have, at least until the turn of the 21st century, remained high in contrast to the rapidly declining fertility rates in the rest of Latin America. The rural total fertility rate (TFR) of 5.8 recorded by the 1998-99 Demographic and Health Survey (DHS) is among the highest in the region and Guatemala was, in 1999, the only Latin American country where the urban TFR exceeded 4.0 (Instituto Nacional de Estadística et al., 1999). With an overall TFR of 4.4 as reported for 2002 (Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., 2003), the country's fertility remains higher than that in the neighbouring Central American countries except Honduras and higher than most other South American countries¹ (Table 2.1). Low use of family planning (FP) is partly responsible for high fertility in Guatemala (Guzman, 1996) and contraceptive prevalence rates (CPR) remain very low compared to the rest of Latin America (Bertrand et al., 2001). Despite very recent estimates for Guatemala indicating lower fertility, urban age specific fertility rates (ASFR) in Guatemala remain the highest compared to the other countries after the age of 20, except for the dent in fertility for the age group 30-34 (Figure 2.1).

High fertility compromises human development in Guatemala, one of the most populated and poorest countries in Latin America with the most unequal land distribution (Agency for International Development, 1982; Terborgh et al., 1995; Steele, 1994). Despite the importance of understanding the dynamics behind the progress (or lack of progress) of the demographic transition in Guatemala, very few studies have been undertaken recently either to establish fertility trends over time. The

¹ Neighbouring Central and South American countries with a large indigenous population were used for the comparison

low CPR is one obvious explanation for Guatemala’s high fertility. When plotting the TFR against the CPR of all and modern FP methods for the same eight Latin American countries as in Table 2.1, Guatemala and Honduras have the highest fertility and Bolivia, Peru and Guatemala the lowest use of modern FP methods (Figure 2.2). Guatemala is situated below the trend line for both modern and all FP methods; hence, fertility in Guatemala is lower than one would expect it to be according to the level of contraceptive use. In contrast, Honduras shows much higher CPRs but has the same level of fertility as Guatemala. The question could be raised whether fertility would decline if CPRs increase and therefore becomes why CPRs are so low in Guatemala?

Table 2.1

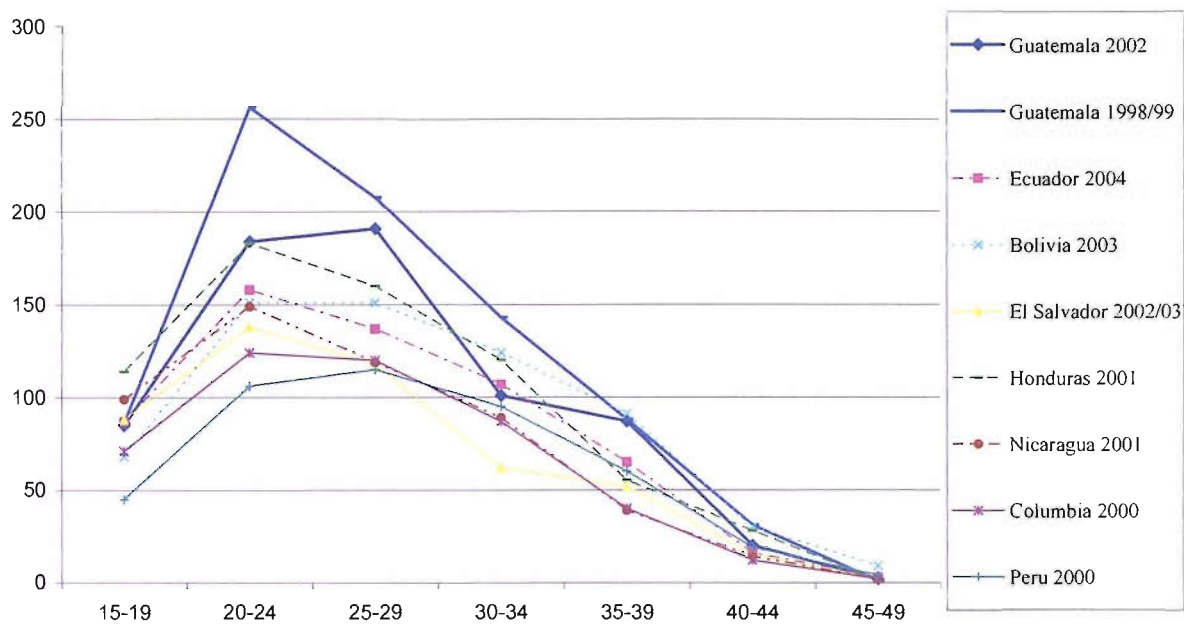
Total fertility rates and contraceptive prevalence rates among women of reproductive age currently in union in eight Latin American countries

Country	TFR	TFR RURAL	TFR URBAN	CPR
Guatemala 2002	4.4	5.2	3.4	43.3
Guatemala 1998/99	5.0	5.8	4.1	38.2
Honduras 2001	4.4	5.6	3.3	61.8
Bolivia 2003	3.8	5.5	3.1	58.4
Ecuador 2004	3.3	3.9	2.9	72.7
Nicaragua 2001	3.2	4.4	2.6	68.6
El Salvador 2002/03	3.0	3.8	2.4	67.3
Peru 2000	2.9	4.3	2.2	68.9
Colombia 2000	2.6	3.8	2.3	76.9

Sources: Guatemalan National Maternal and Child Health Survey 2002; Guatemalan Demographic and Health Survey 1998-99; Republic of El Salvador National Family Health Survey 2002/03; Ecuadorian Demographic Maternal and Infant Health Survey 2004-preliminary report; Bolivian Demographic and Health Survey 2003; Peruvian Demographic and Family Health Survey 2000; Colombian Demographic and Health Survey 2000; Nicaraguan National Demographic and Health Survey 2001; Honduran National Survey of Epidemiology and Family Health 2001.

Figure 2.1

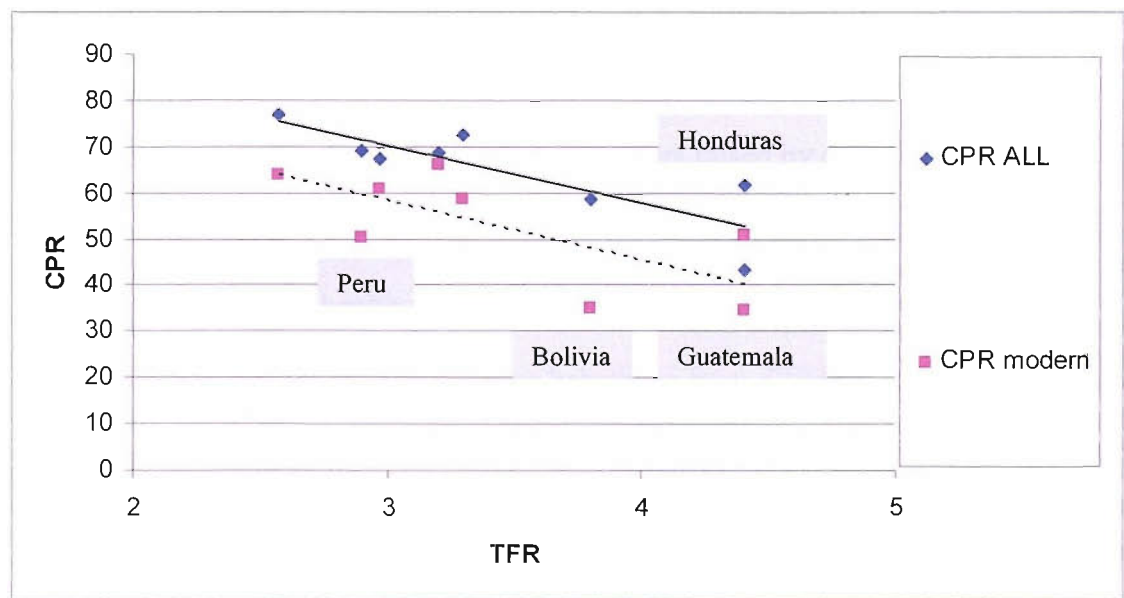
Age specific fertility rates in urban areas of eight Latin American countries



Note: ASFRs over 3-year periods before each survey; Ecuador over 5-year period.

Figure 2.2

Contraceptive prevalence rates (with trend lines) for all and modern FP methods and total fertility rates for eight Latin American countries



Sources for Figures 2.1 and 2.2: See Table 2.1

Previous research has shown the importance of socio-economic or structural factors affecting the evolution of the demographic transition. Declining mortality levels combined with economic development, urbanisation, the increased availability of health care services, the effect of population programmes in expanding access to FP services and reducing unmet need, and increased female literacy, education and labour force participation have all contributed to the decline of fertility in Latin America (Caldwell, 1980; Tuiran et al., 2003; Weinberger, 1987; Casterline, 2001). On all these factors Guatemala is lagging behind almost all other Latin American countries – a partial exception being Bolivia, where fertility is also high. Guatemala has the highest levels of illiteracy in all age groups among women of reproductive age and the highest infant mortality rate and level of malnutrition (Table 2.2). However, cultural factors have increasingly been considered to play a crucial role in determining the further progress of the fertility transition (Boserup, 1985; Cleland and Wilson, 1987; Le Bras and Todd, 1981; Oppenheim Mason, 1997; Zavala de Cosio, 1996). It has been argued that the diffusion of ideational and social change is an important determinant of the progress of fertility decline within the same region (Cleland and Wilson, 1987; Bongaarts and Watkins, 1996), and previous work in historical Europe (Lesthaeghe, 1977) has demonstrated the impact of linguistic divides on fertility levels during the transition. Socio-cultural heterogeneity and barriers raised by different ethnicity, religion, language, and cultural values (often associated with discrimination and the unequal distribution of health and education facilities) prevent knowledge and attitudes favouring modern reproductive behaviour from diffusing through all sectors of the society (Bongaarts and Watkins, 1996; Cleland and Wilson, 1987; Madhavan et al., 2003; Reed et al., 1999).

Table 2.2

Percentage distribution of women of reproductive age according to demographic characteristic, child health and FP indicators for eight Latin American countries

Demographic and socio-economic characteristic	Guatemala 1998/99	Guatemala 2002	Ecuador 2004	Bolivia 2003	El Salvador 2002/03	Nicaragua 2001	Honduras 2001	Peru 2000	Colombia 2000
Residence									
Urban	45.0	42.5	NA	68.9	56.7	63.1	51.1	69.9	77.4
Rural	55.0	57.5	NA	31.1	43.3	36.9	48.9	30.1	22.6
Educational level									
None	25.3	25.5	3.2	6.2	12.5	14.4	10.0	5.1	3.3
Primary	49.3	44.4	36.2	46.5	35.8	39.5	59.0	28.6	31.8
Secondary	22.4	25.9	43.1	34.6	22.8	36.1	25.5	44.6	50.1
Higher	3.0	4.2	16.5	12.8	28.9	9.9	5.5	21.7	14.8
% currently not working	62.2	63.7	55.9	40.2	60.0	59.4	63.2	43.4	51.5
Infant mortality rate (/1000)	45.0	44.0	29.0	54.0	24	31.0	34.0	33.0	21.0
% Children chronically malnourished*	46.4	49.3	23.2	26.5	18.9	20.2	29.2	25.4	13.5
% Unmet need or women who need FP	23.1	28.0	8.0	22.7	5.5	14.6	7.0	10.2	6.2
% Illiterate by age group									
15-19	12.8	12.3	NA	0.5	3.7	6.3	NA	1.0	0.6
20-24	20.2	18.4	NA	1.9	7.0	10.5	NA	2.0	1.2
25-29	21.0	24.2	NA	4.4	9.6	15.5	NA	3.0	1.7
30-34	25.8	29.2	NA	4.8	13.5	13.2	NA	5.3	2.0
35-39	35.2	32.6	NA	8.9	20.0	19.1	NA	7.0	5.3
40-44	44.4	43.1	NA	14.8	23.6	24.3	NA	10.4	6.9
45-49	42.1	43.2	NA	20.5	28.9	28.5	NA	14.4	10.2

Sources: See Table 2.1; NA=Not Available; *Size by age among children between 0 and 59 month

Guatemala has been described as the most segregated country in Latin America in terms of ethnic and social stratification (Glei and Goldman, 2000; Wearne, 1994; Kluck, 1983). This observation stems from the fact that Guatemala's population not only has the largest proportion of indigenous people in Latin America but its indigenous population consists of Garífunas, Xinkas and Mayas, the latter representing 21 different language groups. The indigenous population represents approximately 50 per cent of the total population and ethnic divides are strongly correlated with geographical location and socio-economic divides (Psacharopoulos and Patrinos, 1993; Lovell and Lutz, 1994). Previous studies have highlighted the importance of ethnic segregation in health and reproductive behaviour; indigenous women have always used FP and modern pregnancy related care less often than *ladino* women (Bertrand et al., 1982; Bertrand et al., 2001; Goldman and Glei, 2003; Monteith et al., 1985). Only a few studies in the past have highlighted ethnic differences in fertility patterns (Anderson and Morris, 1977; Anderson et al., 1980; Holian, 1985; Monteith et al., 1985). Apart from the 2002 Maternal and Child Health Survey that shows recent trends in fertility (Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., 2003), no detailed analysis of associated factors with diversity in fertility patterns has been, to the authors knowledge, recently undertaken.

1.1 Aims and hypotheses

This paper studies past and recent fertility patterns in urban and rural areas of Guatemala. It argues that cultural diversity and in particular ethnic segregation and indigenous deprivation in the country is one factor preventing the smooth progress of

the demographic transition and that its inhibiting effect is manifest in two ways.

Firstly, the lack of investment by the government in health and education in rural areas has meant that in Guatemala the rural predominantly indigenous population has poor health outcomes and has remained illiterate (Psacharopoulos and Patrinos, 1993; de Ferranti et al., 2004). This is reflected in high levels of malnutrition and infant mortality, which contributes to the high fertility in rural areas. Secondly, continuing ethnic, socio-economic and geographical segregation prevents the diffusion of knowledge and attitudes favouring modern reproductive behaviour among these different groups in the population. The second aim of this paper is to investigate the recent decline in fertility from a TFR of 5.0 to 4.4 between 1998/99 and 2002.

The theory of diffusion offers a valuable framework to explain why reproductive behaviour remains so diverse in Guatemala and why a vast proportion of the population, the more rural indigenous population, lags behind in terms of its demographic transition compared to the more urban *ladino* population. This paper presents fertility patterns in urban and rural areas of Guatemala over the past 20 years and makes an attempt to link the observed fertility trends with the ideas behind the ‘cultural version’ of the classic demographic transition theory.

1.2 Background

The theory of diffusion and the evolution of fertility in Latin America. The start of the demographic transition in Latin America at the end of the 19th century was marked by sharp declines in infant and adult mortality thanks to the availability of modern public health care (Arriaga, 1970). Initially, fertility levels rose as a consequence of

the reduction in sterility among women of reproductive age and a decline in widowhood; however, fertility levels rose much more rapidly in Latin America compared to Europe because modern public health care was introduced much more suddenly (Zavala de Cosio, 1996). Additionally, Latin America was characterised by higher and more universal nuptiality whereas in Europe substantial proportions of the population remained unmarried for life. Also, the proportions currently married at younger ages rose and estimates of mean age at marriage declined (Dyson and Murphy, 1985). Even though in most Latin American countries fertility levels only started to decline around 1965, some cities like Buenos Aires and Montevideo had lower fertility levels from the 1930s onwards because communities of European immigrants had preserved the reproductive behaviour from their country of origin (Cosio-Zavala, 1997).

Before 1960, agriculture was the main economic activity in most Latin American countries. The majority of the population lived in rural areas, had no or little education and the economy mainly depended on manual labour. In countries where the indigenous people constituted the majority, they were excluded from the main economic and political activities in the society (Steele, 1994; Rama, 1984). In the 1960s profound social and economic changes took place. People emigrated from the rural areas into the cities driven by an expanding labour market; women participated increasingly in the non-manual labour force and the development of mass media, communication and transport facilities improved social interactions between the different sectors and social layers of the societies.

There has been considerable variation in the timing and the pace of the fertility transition both between and within countries (Guzman, 1996; Chackiel and Schkolnik, 1996). At the beginning of the transition all Latin American countries contained social groups that practiced birth control; however, the size of these groups differed between countries and depended on the national level of socio-economic development (Guzman, 1994; Guzman, 1996). Because of the elitist character of the Latin American society, the reproductive behaviour in these socially distinct groups took place independent of the rest of the society prior to 1960 (Juárez, 1993); after that social changes allowed the more widespread adoption of fertility control. Bongaarts and Watkins (1996) observed that large regions experienced fertility decline at approximately the same time independently of the degree of socio-economic development at the local level; the transition occurred first in the most literate, industrialized, urban provinces and then spread out to other regions even if these had far lower levels of development. According to the theory of diffusion, fertility declines are not just an adjustment to changing socio-economic circumstances as suggested by the classic demographic transition theory. Rather, the theory ascribes fertility changes to the horizontal and vertical diffusion of ideas, attitudes, and information on birth control through behavioural mechanisms of social learning, social influence and social norms within and between different social groups, areas and individuals (Montgomery and Casterline, 1996). As such, diffusion can determine the timing and pace of the fertility transition. Diffusion channels such as mass media communication and social networks created the opportunity for social interaction and the transfer of information (Bongaarts and Watkins, 1996). Fertility change (decline) will occur more rapidly in 'socially integrated' societies (Retherford, 1985) or in societies where multiple

channels of social interaction link the different sectors (Bongaarts and Watkins, 1996; Retherford, 1985).

Several authors have ‘blended’ the diffusion theory of the fertility transition with the ‘classical’ account which sees socio-economic changes as the engine of demographic change in order to explain the diversity in the Latin American fertility transition (Reed et al., 1999). For example, Zavala de Cosío distinguished two models to explain the demographic transition in Latin America (Zavala de Cosío, 1988). In the first, the more ‘modern’ reproductive behaviour among the rich, induced by urbanization, changes in education, the labour market and the status of the women and followed by the adoption of traditional or modern contraceptives, was spread through a diffusion process. The process of the decline itself was ‘determined by the speed at which the various social groups are integrated into the process’ and the overall adoption of modern reproductive behaviour depended on whether the higher educated sectors were taken as a model for the rest of the society (Guzman, 1996 p. xxvii). The second model concerns the poorest sectors of the society where the decline of fertility took place not so much because of improved standards of living but because modern contraceptives were supplied in abundance through FP programmes. The adoption of FP among the poor mainly consists of women adopting sterilisation at the end of their reproductive life, characterised by early and closely spaced pregnancies, when they consider their families large enough. This is what Cosío-Zavala refers to as ‘the Malthusianism of the Poor’ whereby the poorest sectors of the society consider the fact that having too many children under poor socio-economic conditions threatens the family’s well-being (Cosío-Zavala, 1997; Boserup, 1985).

2. Data and methods

2.1 Data

The data to be used are the DHSs 1987, 1995 and 1998/99, obtained from Macro-International; the National Maternal and Child Health Survey (NMCHS) 2002 obtained from the Reproductive Health Unit at the Centres for Disease Control and the census 2002, obtained from the Institute of National Statistics in Guatemala City (Instituto Nacional de Estadística and Ministerio de Salud pública y Asistencia Social and Macro International, 1996; Instituto Nacional de Estadística et al., 1999; Ministerio de Salud Pública y Asistencia Social, 1989; Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., 2003). The four surveys are considered comparable because they are representative at the national level, based on relatively large samples of 5160 (1987); 12403 (1995); 6021 (1998/99) and 9155 (2002) women of reproductive age and cover similar topics in their questionnaires. The questionnaires include questions on socio-economic indicators at the household and individual level, child and adult health in the household, the birth history and contraceptive use of each interviewed woman of reproductive age and her indicators of sexual and reproductive health. The census data do not include individual level data but data at the *municipio* level (the smallest administrative unit in Guatemala).

The census classified 59 per cent of the population as *ladino* and 41 per cent of the population as indigenous (Maya, Xinka, Garifuna and other), an underestimation of the generally accepted 50 per cent. The classification in the census was partially

based on self-identification. People were asked to which predefined ethnic group (*ladino*, Maya, Xinka, Garífuna or other), and, if they considered themselves Maya, to which of the 21 Maya language groups they belonged. The 1998/99 and 2002 surveys only classified 30 per cent of people as indigenous. In these surveys, the interviewer classified ethnic groups based on cultural characteristics such as language and dress.

2.2 Methods

First, the history of Guatemalan fertility over the past 25 years is charted using methods similar to those employed for Nepal by Collumbien et al. (1997) and for Tanzania by Hinde and Mturi (2000). This analysis uses P/F ratios as an analytical and diagnostic tool and at the same time a measure of quality control of the data. It is aimed at describing fertility trends at the national level, and identifying the trend in fertility in rural and urban areas, which have not been previously studied in this way for Guatemala. The P/F ratio is the ratio between the reported average parity of women of a particular age (P) and the average parity women of that age would have attained if they had been subject to current ASFRs (F). Typically, P/F ratios for the youngest age group (15-19) are not calculated as P and F are based on small numbers. In order to further examine trends in fertility, the ASFRs over four-year periods between 1968-71 and 2002 for the four surveys (1987, 1995, 1998-99 and 2002) were calculated to detect whether estimates for the same periods correspond². The ASFRs will be able to give a more visual and detailed picture of fertility patterns in Guatemala from 1968 until 2002.

The analysis will in particular focus on the three years before the 2002 survey and 2002 census in order to analyse the recent fertility decline. The NMCHS of 2002 took place between April and November 2002 (average date: end of July 2002) and the census between the 24th of November and the 7th of December 2002 (average date: end of November 2002). Three window-periods (0 to 11; 12 to 23 and 24 to 35 months) will be identified before the survey and one window-period (0-11 months) before the census in order to explore in detail the patterns of recent fertility decline in the three years before the survey and one year before the census of 2002. Months and years of birth were turned into century months (for example: a birth that took place in April 1980 gives $4 + ((1980-1900)*12)$ century months). When the month was missing it was assumed births took place on average in June. Only few years of birth were missing and the number of missing years did not differ between birth orders.

If ethnic and geographical segregation is important, then one might expect substantial regional and local-level variation in fertility levels associated with ethnic divides. DHS data, because of its reduced sample size and its restricted definition of ethnicity, are unsuited to identifying this kind of geographical patterning. Therefore, in the last part of the paper, the 2002 population census data at *municipio*-level are used to analyse geographical variations in fertility in Guatemala (the *municipio* is the smallest unit for which fertility data are published in the census reports). The census data will be used to demonstrate the diversity in fertility patterns among the different *municipios* within Guatemala. For this, unique geographical maps have been produced with fertility levels and the values of some of the independent variables under study at

² For the calculation of the age specific fertility rates based on exact exposure Dr Andrew Hinde's programme files were used and adjusted for the Demographic and Health Surveys for Guatemala.

the *municipio*-level. All the maps were produced by the author³ using the Census 2002 data for the values of the individual independent variables of each *municipio*.

The factors associated with the *municipio*-level fertility are examined using an ordinary least squares regression analysis. The dependent variable in this analysis is the TFR in each *municipio*. In order to solve the problem of negative predicted values, the natural logarithm (\log_e) of the TFR was calculated and taken as the dependent variable, implying a multiplicative model. The following independent variables available from the census data were included in the model: the proportion of the population which is indigenous (Maya, Garífuna, Xinka or other), the proportion of women above 19 years of age who are economically inactive, the proportion of the population residing in rural areas, the proportion of the population which is illiterate, whether or not the *municipio* included the capital of one of the 23 Guatemalan provinces (*departamentos*) and whether or not the *municipio* was located within the national capital's *departamento*. Whether the *municipio* included the capital of the province or was within the capital's province was selected as a variable because the main hospital and administrative facilities are often located in those 'capital' *municipios*, and it is interesting to see if their presence was associated with fertility levels. Two variables were created in order to measure socio-economic conditions on the basis of household amenities (proportion of households that own the houses they are living in, that have a private water supply and electricity, that have council or private household waste collection, that have a separate kitchen and that have access to private sanitary provision) and characteristics of the dwelling (the proportion of dwellings that have concrete, asbestos or slate -as opposed to palm or corrugated iron-

³ With the help of Michael Kraft

roofs; that have block, brick or concrete -as opposed to clay, mud, wood, palm or corrugated iron- walls and the proportion of households that have a floor other than earth). All of those indicators were derived from the 2002 census and the average of the Z-scores of each indicator for each *municipio* was calculated to create the asset variable for the dwelling and the household. In addition, data on the infant mortality rates and the proportion of mothers giving birth at home were obtained from the Office of National Statistics in Guatemala based on the 2001 vital registration data and included in the model as control variables. However, the infant mortality rate was not included in the analysis because its recording appeared to be particularly unreliable (the indigenous areas of the north had very low levels of infant mortality whereas the southern areas had higher levels of infant mortality, probably mainly reflecting the quality of data recording).

Because of the focus of our research, two new variables were created in order to measure ethnic diversity and cultural heterogeneity. A novel approach was taken by creating an index of diversity using the technique described by Don Rowland (Rowland, 2003 p.479). The standardised index of diversity is the level of diversity (1 minus the sum of the squares of all the proportions of each of the ethnic groups within a *municipio*) divided by the maximum value of the index (1 minus the reciprocal of the number of ethnic groups within the same *municipio*), as shown in the equation below. The index of diversity is used with categorical variables and ranges, in its standardised form between 0 (no diversity - all members of the population are in one category) to 1 (maximum diversity - all members of the population are equally distributed across all categories).

$$\text{Standardised index of diversity} = \frac{1 - \sum X^2}{1 - \frac{1}{n}}$$

X = proportion of each ethnic group within the *municipio*

n = number of ethnic groups within the *municipio*

The disadvantage of this indicator is that it disguises some of the differences between populations (Rowland, 2003). In the case of Guatemala, the Mayas can be subdivided into more than 20 language groups whereas this is not the case for the other ethnic groups. In order to account for the heterogeneity among Mayas, a ‘crude’ variable measuring ethnic composition was created by adding the number of ethnic groups (*Ladino*, Maya, Garífuna, Xinka and others) within each *municipio* to the number of Maya languages spoken within that *municipio* (a language was counted as spoken if at least 25 people were speaking it). This variable is referred to as degree of ethnic heterogeneity. This variable had values between one and 25.

3. Results

3.1 Fertility trends in Guatemala

The first part of this paper presents Guatemalan fertility trends for urban and rural areas over the past 20 years and uses P/F ratios as an analytical and diagnostic tool and at the same time quality control measure of the data. Table 2.3 presents the TFRs in Guatemala between 1987 and 2002 estimated by the three DHSs of 1987, 1995, and 1998-99 and the Guatemalan NMCHS of 2002. The evolution of the overall TFR and the ASFRs between 1987 and 2002 indicates that a decline in fertility has taken place (Table 2.3 and Figure 2.3). The TFR estimates suggest a relatively slow fertility decline between 1987 and 1998 followed by a sharp decline in fertility between 1998-99 and 2002.

Table 2.3

Total fertility rates between 1987 and 2002 in Guatemala according to type of place of residence

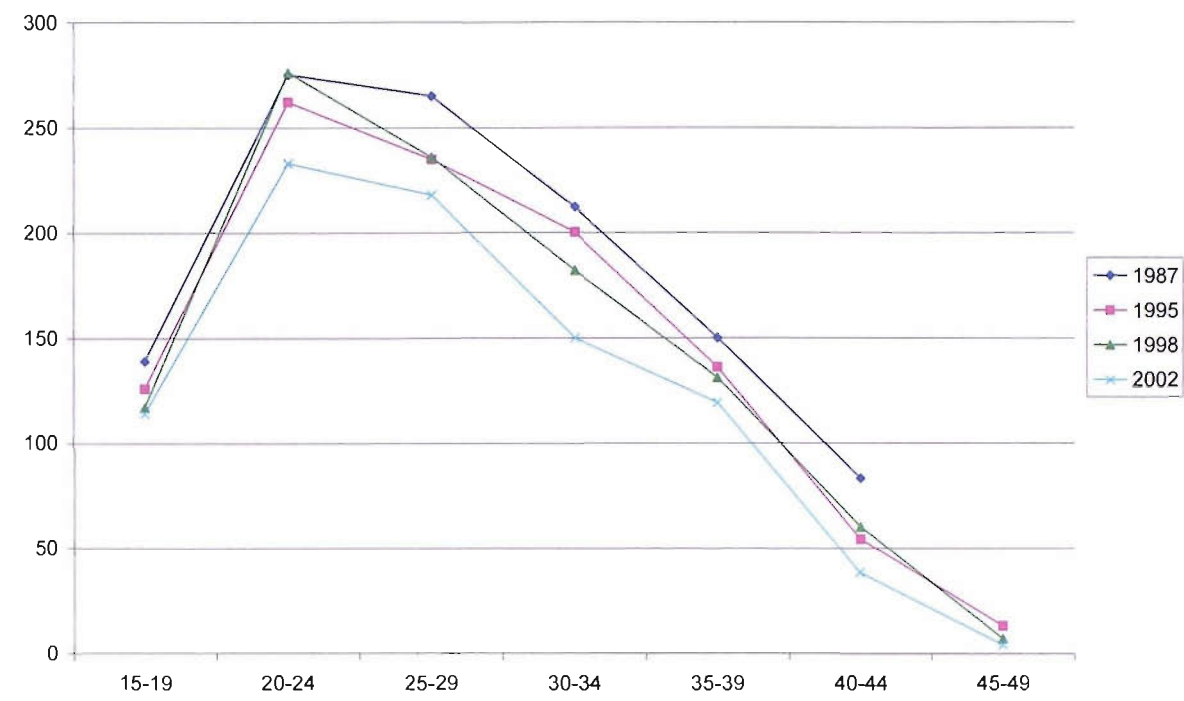
	1987	1995	1998-99	2002
	Survey	Survey	Survey	Survey
TOTAL	5.6	5.1	5.0	4.4
URBAN	4.1	3.8	4.1	3.4
RURAL	6.5	6.2	5.8	5.2

Sources: Guatemalan DHSs, 1987, 1995 and 1998-99; Guatemalan NMCHS 2002.

Note: TFRs based on three years before the surveys 1995, 1998/99 and 2002 and five years before the 1987 survey

Figure 2.3

Age specific fertility rates in Guatemala: 1987-2002



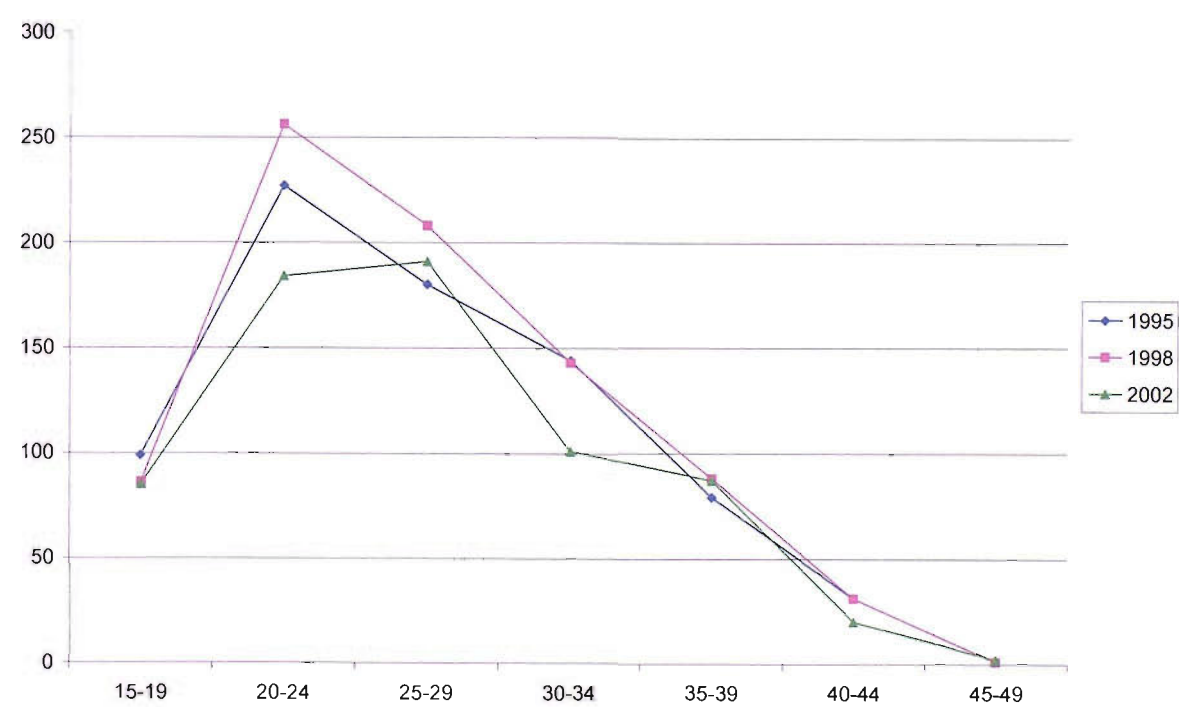
Sources: Guatemalan DHSs, 1987, 1995 and 1998-99; Guatemalan NMCHS 2002.

Note: ASFR based on three years before the surveys 1995, 1998/99 and 2002 and five years for the 1987 survey

The urban fertility rates measured by the DHSs (Table 2.3 and Figure 2.4) seem to indicate that urban fertility was lower in 1995 than in 1998-99. The irregularity in the trend suggests either that urban fertility may have been underestimated by the 1995 DHS, or that the urban TFR of 4.1 in the 1998-99 DHS is an overestimate. Also, the 2002 survey shows a sharp dent in urban fertility for the age groups 30 to 34. To try to shed light on these and other issues of data quality, P/F ratios for the 1987, 1995, 1998-99 DHS data and 2002 NMCHS were calculated

(Table 2.4). Assuming unchanging fertility and perfectly accurate reporting, the P/F ratio at all ages should be equal to 1.0. P/F ratios in excess of 1.0 might be the result of a recent fertility decline (which would inflate P relative to F, since P is based largely on births in the past when fertility was higher) or under-reporting of current fertility relative to past fertility (as in the case of a census when women are asked about the number of births in the last year), or a combination of the two. However, the impact of recent fertility declines should be small among younger women (aged 20-24 and 25-29 years), suggesting that the P/F ratios among these women may be used to estimate the (under)reporting of current fertility relative to past fertility (National Academy of Sciences (U.S.) et al., 1983).

Figure 2.4
Age specific fertility rates in urban Guatemala 1995-2002



Sources: Guatemalan DHSs, 1995 and 1998-99; Guatemalan NMCHS 2002.

If fertility has been declining, the F values for any age group will be lower than the P values, and if fertility decline has been occurring continually over the life of the women represented, the divergence between F and P will increase with age. Therefore P/F ratios which increase steadily with age can be interpreted fairly reliably as an indication of recent fertility decline. Indeed, they may underestimate the extent of fertility decline because of the tendency for average parities among older women (age groups 40-44 and 45-49) to be under-estimated because of the omission of births that occurred long ago, especially when the children died in infancy.

The P/F ratios for the 1987 and 1995 DHS surveys do not indicate a decline in fertility. The P/F ratios for the whole population from the 1998-99 DHS show a very 'typical' and consistent trend, being close to 1.0 in the younger age groups (their current fertility corresponding with their fairly recent past fertility) and increasing steadily for the older age groups, indicating a start of a fertility decline. Similar conclusions can be drawn from the results when looking at the P/F ratios for urban and rural areas (Table 2.4). However, the data for urban areas have to be considered with caution because of the effect of rural-urban migration. Recent high levels of rural-urban migration might inflate values of P if moving from the countryside to an urban area involves a simultaneous (or even slightly delayed) change in fertility behaviour. This might account for the relatively high P/F ratios in urban areas in the 1987 DHS. There is nothing in the P/F ratios to indicate that current urban fertility in 1995 was under-reported. The P/F ratios for the DHS surveys 1987, 1995 and 1998/99 were based on F values which reflect a three-year period. In order to compare the data from the NMCHS 2002 with the census 2002, F values for both were based on births during the previous one year.

Table 2.4

P/F ratios for the different surveys and the 2002 census in Guatemala

Age groups	1987 Survey	1995 Survey	1998/99 Survey	2002 Census	2002 Survey (a)	2002 Survey (b)	2002 Survey (c)	2002 Survey (d)
F based on three years				-----F based on one year-----				
20-24	1.05	1.03	0.99	1.26	1.33	1.11	1.02	1.14
25-29	1.07	0.98	0.99	1.28	1.37	1.14	1.06	1.18
30-34	1.05	1.01	0.99	1.31	1.39	1.15	1.09	1.20
35-39	1.03	1.00	1.09	1.33	1.38	1.15	1.08	1.18
40-44	1.03	1.00	1.13	1.36	1.55	1.29	1.22	1.33
45-49		1.04	1.12	1.40	1.47	1.25	1.19	1.28
URBAN								
20-24	1.11	1.02	1.01	1.22	1.30	1.05	-	1.16
25-29	1.15	0.94	1.00	1.26	1.38	1.07	-	1.19
30-34	1.16	0.94	0.99	1.31	1.43	1.14	-	1.23
35-39	1.08	1.02	1.00	1.36	1.42	1.12	-	1.20
40-44	1.23	1.05	1.16	1.42	1.67	1.32	-	1.41
45-49		1.03	1.13	1.49	1.60	1.33	-	1.39
RURAL								
20-24	1.04	1.03	1.00	1.31	1.35	1.13	-	1.13
25-29	1.05	0.99	0.97	1.32	1.38	1.18	-	1.18
30-34	1.01	1.04	1.00	1.32	1.38	1.16	-	1.19
35-39	1.01	1.00	1.10	1.32	1.39	1.18	-	1.19
40-44	0.97	0.97	1.09	1.34	1.50	1.27	-	1.29
45-49		1.07	1.08	1.36	1.42	1.22	-	1.23

Sources: Guatemalan Demographic and Health Surveys 1987; 1995 and 1998-99; the 2002 Maternal and Child Health Survey and the 2002 Guatemalan Census.

(a) F values based on ASFR of births between 0 and 11 months before the survey

(b) F values based on ASFR of births between 12 and 23 months before the survey

(c) F values based on ASFR of births between 24 and 35 months before the survey

(d) F values based on ASFR of average current 2000-02 fertility

In the case of Guatemala's 2002 census, the P/F ratios for women aged 20-24 and 25-29 years are 1.26 and 1.28 respectively (Table 2.4), suggesting a systematic under-reporting of current fertility by about 25 per cent. They also indicate that a

recent fertility decline has taken place because the P/F ratios gradually increase with age. The survey data for 2002 are ‘atypical’ in that high P/F ratios of 1.33 and 1.37 are recorded for the young age groups (column (a) in Table 2.4). Moreover, the extremely high P/F ratios in the year before the 2002 census and 2002 survey are consistent across both independent data sources. The values are too high to solely be explained by under-reporting of births in the last year and most probably indicate a sudden decline in fertility shortly before the census and survey. In order to clarify the extent and timing of the decline in fertility, P/F ratios were calculated based on births during the periods 12 to 23 months and 24 to 35 months before the survey (columns b and c in Table 2.4). This was not possible for the census as the census only asked about births in the past year. The P/F values from the period 12-23 months before the survey give lower values of 1.11 and 1.14 for the age groups 20-24 and 25-29 respectively compared to the later period (column a). These values indicate higher fertility in the past relative to current fertility even in these age groups and for that period or underreporting by a lesser degree than 0-11 months before the survey. The P/F ratios for the period 24 to 35 months before the survey for the younger age groups show more ‘typical’ values (P/F ratios around 1.00) but also reflect a recent decline in fertility as values increase with age. The estimates for the urban and rural population were not calculated for that last period because of urban-rural migration increasingly affecting the number of births recorded as urban at the time of the survey but having taken place in rural areas two to three years earlier. The P/F values based on the ASFR for the average fertility in the 2000-02 period (column d in Table 2.4) produce values reflecting an average of the three periods (columns a, b and c in Table 2.4).

In order to get more precise estimates of the TFRs for the survey and the census of 2002, ASFRs were calculated and cumulated for different years before the survey and census to give period TFRs (Table 2.5). Three window-periods (0-11; 12-23 and 24-35 months) were identified before the survey and one window period (0-11 months) before the census. The TFR estimates for the census and the survey 2002 differ partly because the estimates for the survey are weighted (Table 2.5). If the ASFRs for the census and the NMCH survey data of 2002 (both based on births in the last year) are plotted very similar age-patterns emerge (Figure 2.5). However, a dip in the estimate of rural fertility for the ages 30-34 is shown in the NMCHS 2002 data reflected in the lower rural TFR for the survey (Table 2.5). Estimates of the TFR gradually go up going back in time: the periods 12 to 23 months (end of July 2000 to end of July 2001) and 24 to 35 months (end of July 1999 to end of July 2000) before the survey. When plotting the ASFRs for the three window-periods (0-11; 12-23 and 24-35 months before the survey) a clear declining trend in fertility over the three year period before end of July 2002 appears (Figure 2.6). Keeping in mind the four months time difference between the average dates of the census and the survey, the previous results suggest that fertility has been declining sharply since the 1998/99 survey and fertility has dropped dramatically in the year before the survey and census of 2002.

Table 2.5

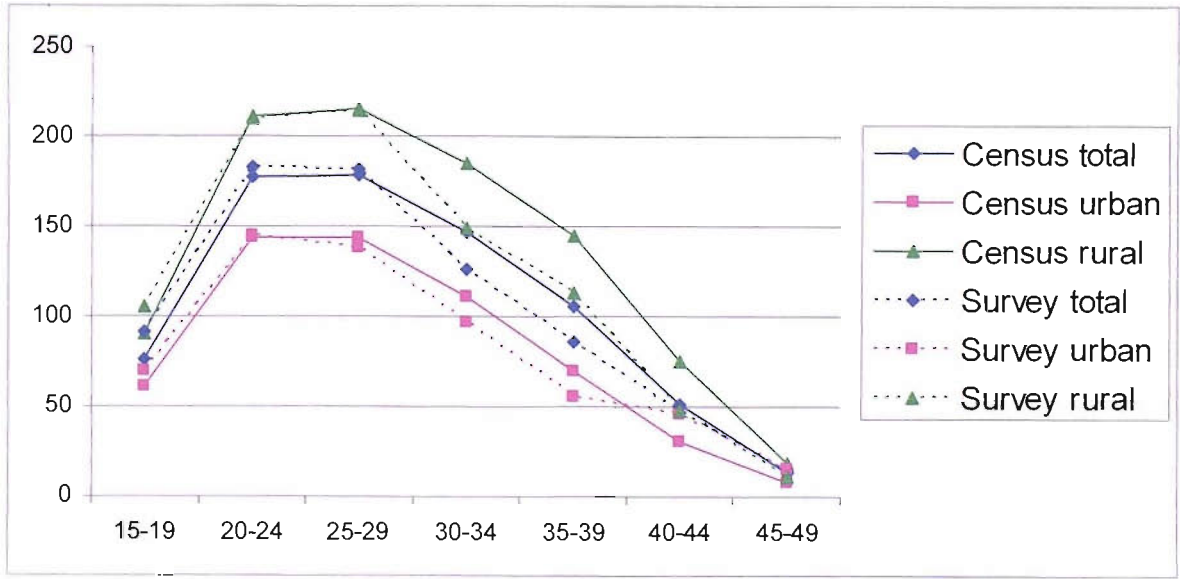
Estimates of the total fertility rate based on age-specific fertility rates from different years before the survey and census 2002

TFR	ASFR based on births 0-11 months before the survey 2002	ASFR based on births 0-11 months before the census 2002	ASFR based on births 12-23 months before survey 2002	ASFR based on births 24-35 months before survey 2002	ASFR based on average 2000-02 fertility from survey
TOTAL	3.64	3.74	4.22	4.49	4.20
URBAN	2.83	2.84	3.31	-	3.25
RURAL	4.25	4.70	4.92	-	4.96

Note: Weighted values for the survey

Figure 2.5

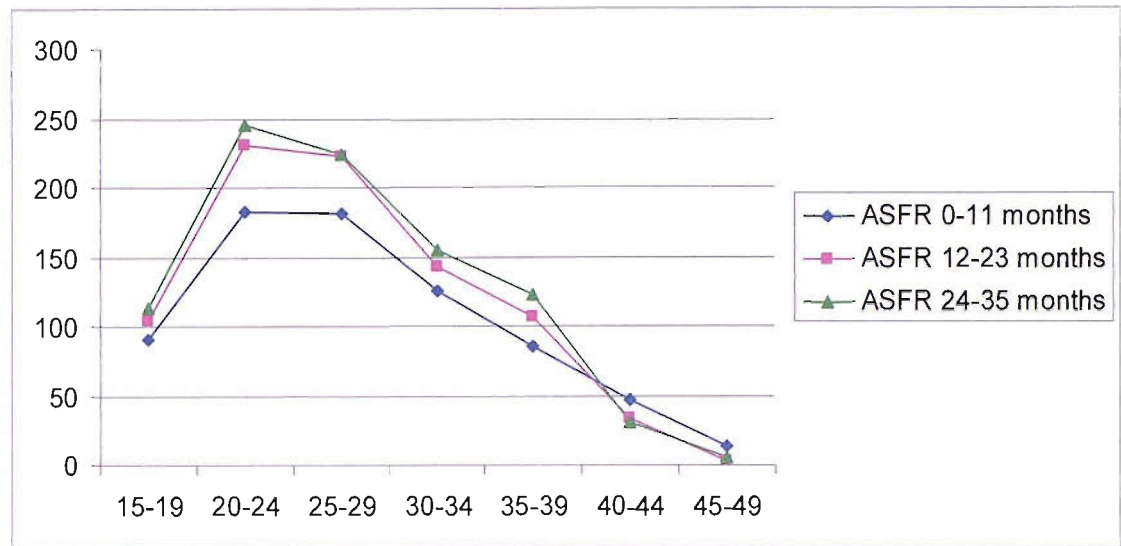
Age specific fertility rates: estimates from the survey and census 2002 based on births in the last year



Sources: Guatemalan NMCHS 2002; census of Guatemala 2002.

Figure 2.6

Age specific fertility rates based on births occurred during different time periods before the 2002 survey



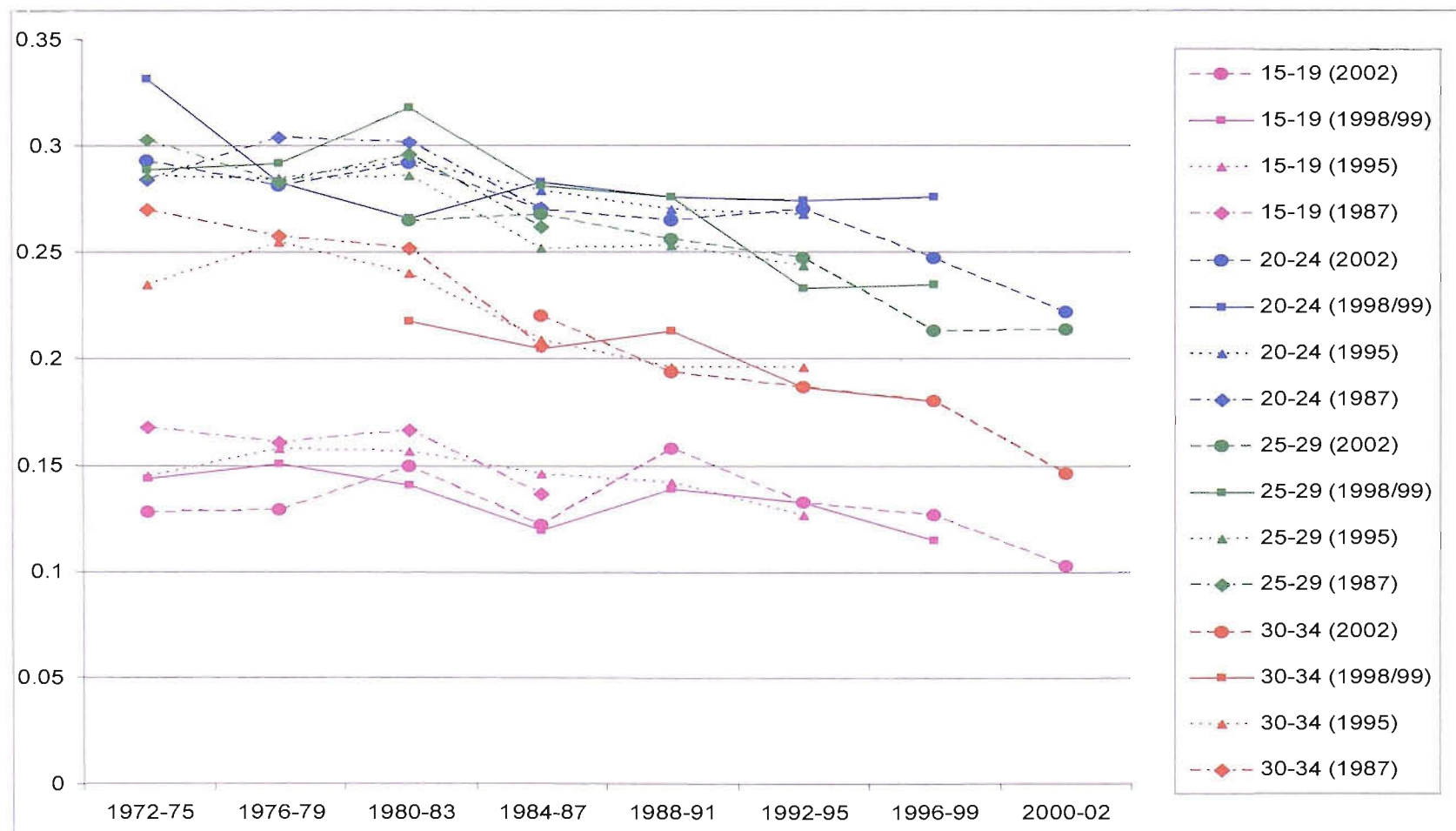
Source: Guatemalan NMCHS 2002

3.2 How do fertility trends correspond between the different surveys?

The ASFRs are calculated using the exact exposure within each age group in each period, and are rendered comparable across the surveys by the exclusion of data from the northern region of Petén from the 1998-99 and 2002 surveys (this region was not included in the surveys of 1987 and 1995). Figure 2.7 (See Annex I Table 1 for exact figures) presents the estimates for the whole country for the age groups 15-19 to 30-34. The consistency across the three earliest surveys is impressive, increasing our confidence in the results. The ASFRs for most age groups are available for at least two of the surveys for the periods 1980-83 to 2000-02 so that period TFRs can be estimated by summing the ASFRs for women aged 15-39 years of age (Table 2.6).

Figure 2.7

Age specific fertility rates for four-year periods from the DHSs of 1987, 1995, 1998-99 and the 2002 NMCHS: whole of Guatemala



The results suggest a clear decline in fertility from a TFR (for women aged 15-39 years) of about 6.0 in 1980-83 to just under 5.0 by 1992-95 and 4.7 in the late-1990s.

Table 2.6

Total fertility rates 15-39 obtained by summing up the age specific fertility rates for the age groups 15-19 to 35-39 inclusive, and multiplying by 5

AGE GROUP	PERIOD					
TFR 15-39 TOTAL	1980-83	1984-87	1988-91	1992-95	1996-99	2000-02
2002				4.77	4.46	3.95
1998-99		5.31	5.17	4.87	4.68	
1995	5.91	5.20	5.04	4.85		
1987	6.01	5.14				
TFR 15-39 URBAN						
2002				3.77	3.60	3.02
1998-99		4.36	4.32	3.81	3.92	
1995	4.51	3.91	3.78	3.90		
1987	4.71	3.75				
TFR 15-39 RURAL						
2002				5.74	5.1	4.67
1998-99		6.11	5.89	5.76	5.31	
1995		6.21	6.01	5.65		
1987	6.77	5.94				

Sources: Guatemalan DHSs 1987, 1995 and 1998-99 and the 2002 NMCHS

Note: In this table, the Petén region was excluded from the 1998-99 DHS and the 2002 NMCHS, as this region was not included in the 1995 and 1987 DHSs.

The data for the 2002 survey seem to indicate a sharp decline in fertility between the mid 1990s and 2002. However, the 2002 survey gives the lowest estimates for the last comparable periods 1992-95 and 1996-99.

Figure 2.8 (See Annex I Table 2 for exact figures) presents similar estimates for urban areas. The figures for urban areas are not easy to compare across surveys, as whether or not a woman is defined as an 'urban' dweller is based on her place of residence at the date of the survey. Rural-urban migration means that it is likely that some women who were classified as urban in, say, 1995, were living in rural areas in earlier periods. If fertility behaviour adjusts quickly to changed social and economic circumstances, so that moving from a rural to an urban area soon results in a reduction of fertility at the individual level, then one should expect to see a steady rise in 'urban' fertility measured by a particular survey moving backwards through time (since the further back in time one goes, the greater the proportion of women described as 'urban' at the time of the survey who were then living in rural areas). This effect could be attenuated, however, if women who would subsequently migrate to urban areas had lower fertility than the rural average even before their migration (possibly because they belonged to more ambitious, higher educated, or less traditional households). Probably because of this, there is less consistency across surveys in the estimated TFRs for women aged 15-39 for a given period (Table 2.6). The figures which most accurately reflect urban fertility rates are those for periods closest to each survey data (i.e. 1984-87 for the 1987 DHS, 1992-95 for the 1995 DHS, 1996-99 for the 1998-99 DHS and 2000-02 for the 2002 NMCHS). Comparing these figures suggests that fertility in urban Guatemala did not decline appreciably between the mid-1980s and the end of the 1990s, maintaining a TFR for women aged 15-39 of 3.8 or 3.9. Again,

the data from the 2002 survey seem to indicate a drop in urban fertility reflected by the figure of 3.02. The urban ASFRs (Figure 2.8) also show the sharp dent in fertility for the age groups 30-34 whereas fertility seems to have stagnated in the previous age group 25-29. The figures for rural areas in Figure 2.9 (See Annex I Table 3 for exact figures) are less influenced by migration than those for urban areas because women who are classified as 'rural' in 1998 are likely to have resided in rural areas in previous surveys. However, fertility trends in rural areas could be affected, and would show a slower decline, if women who want fewer children are more likely to migrate to urban areas. Consequently, for rural areas there is more consistency across surveys, and a rather simpler pattern. There has been a gradual decline in rural fertility since the early 1980s, with TFRs for women aged 15-39 years falling from something above 6.5 to about 5.3 in 1996-99, dropping to 4.7 according to the 2002 survey (Table 2.6).

Rural and urban fertility levels in Guatemala have shown different patterns of decline over the past 20 years. Fertility decline clearly took place in rural areas whereas urban fertility seems to have stagnated between 1985 and 1998 at just under 4.0 children on average for women of reproductive age. Since 1999, fertility has dropped dramatically and detailed analysis shows the decline was particularly sharp the year before the survey and census. The holding up of total and urban fertility among women between 25 and 29 and the sharp dent in fertility among women in the following age group (30 to 34) in the 2002 survey data could be a real effect in that many women of reproductive age had their last child before the age 30 and then decided to get sterilised, or it could be a flaw in the data.

Figure 2.8

Age specific fertility rates for four-year periods from the DHSs of 1987, 1995, 1998-99 and 2002 NMCHS: urban areas

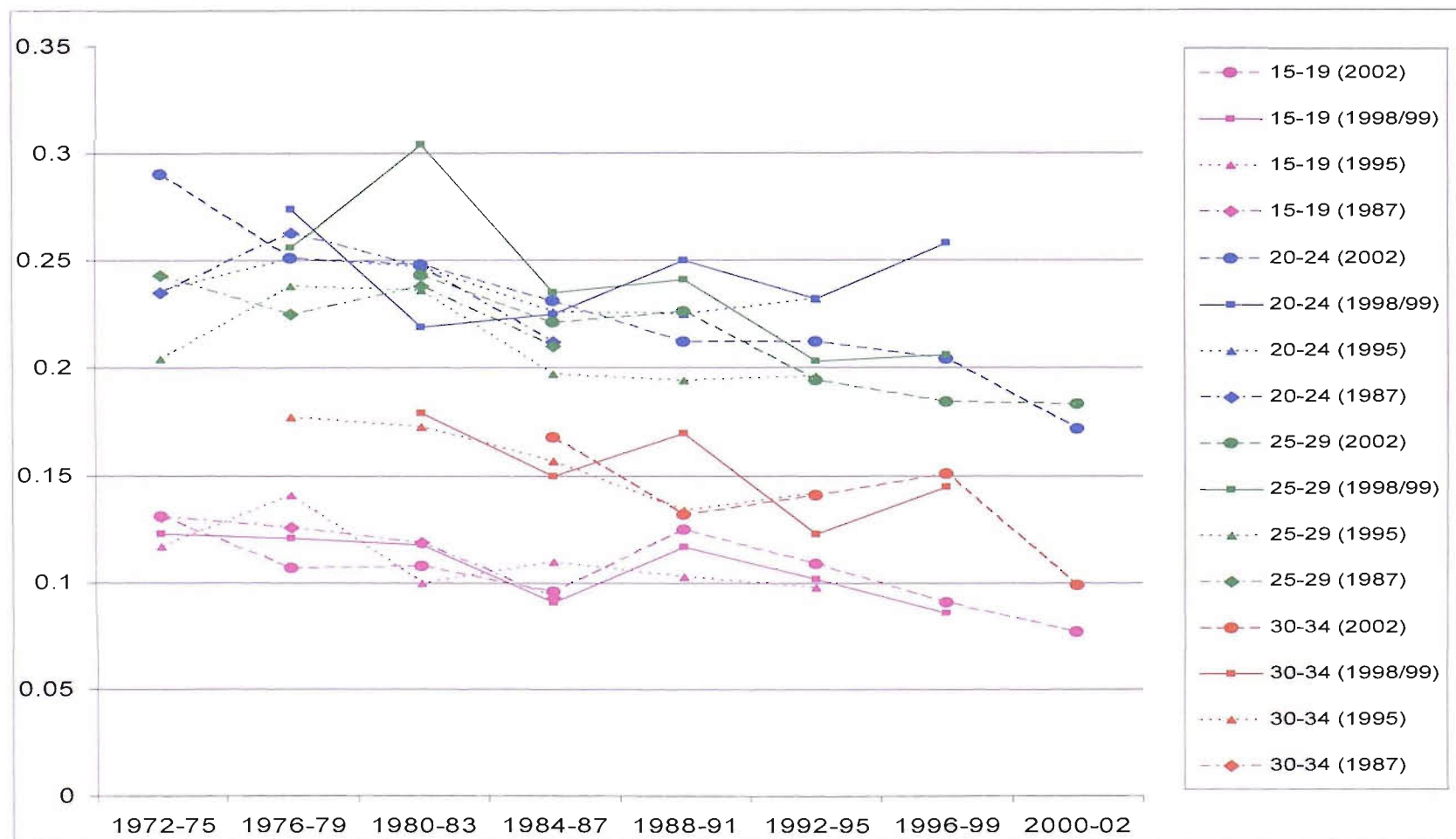
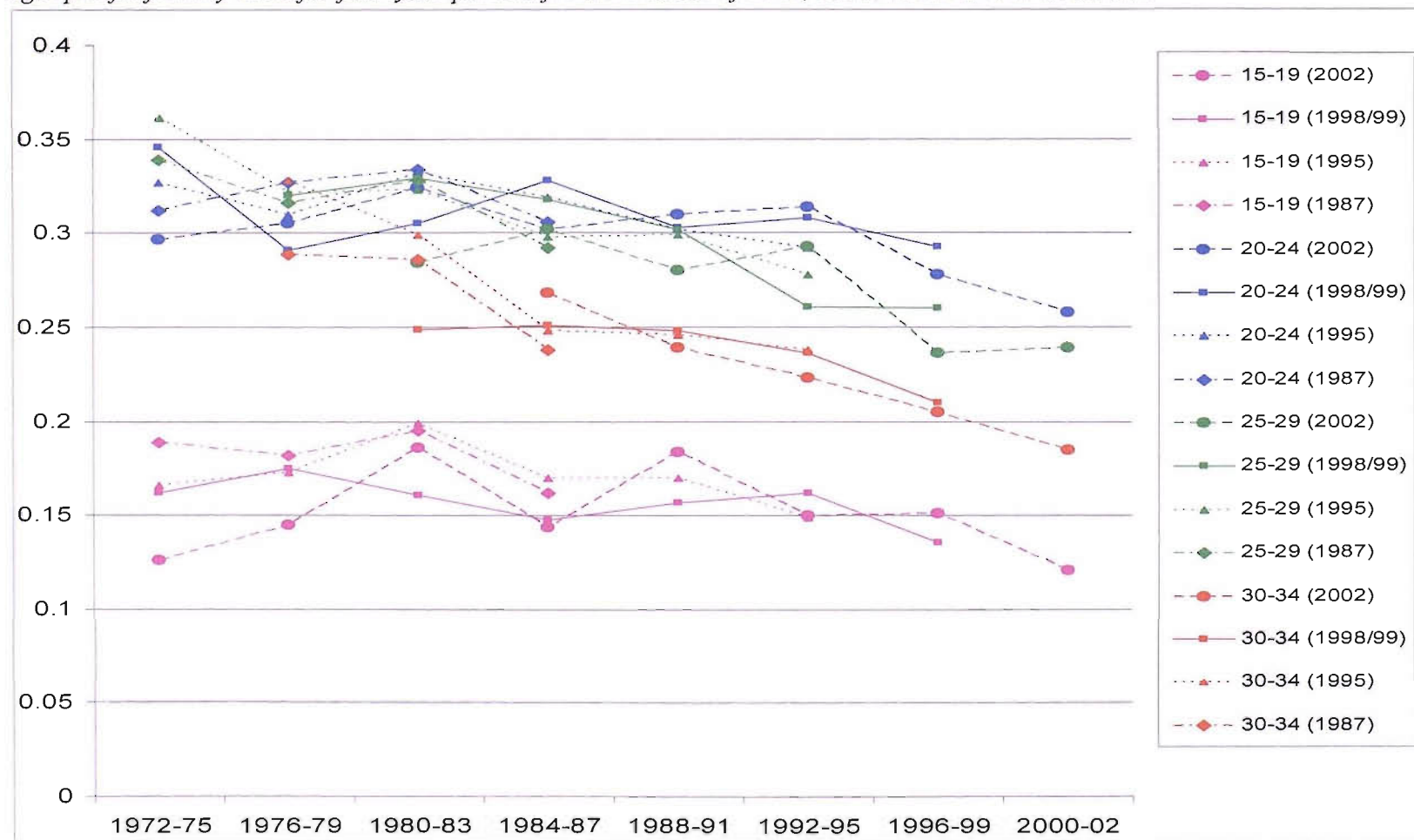


Figure 2.9

Age specific fertility rates for four-year periods from the DHSs of 1987, 1995, 1998-99 and the 2002 NMCHS: rural areas



3.3 Factors associated with current fertility in Guatemala: analysis of the 2002 census data

Our analysis of recent fertility trends raises further questions as to what extent fertility varies at the local level and which factors are associated with this diversity. High global fertility rates in Guatemala have historically been associated with high fertility among its indigenous population (Anderson and Morris, 1977; Bertrand et al., 1979). Recent national estimates suggest that, although fertility among Mayas has declined, the gap between Mayas and *ladinos* has widened: TFRs among Mayas have declined from 6.8 to 6.1 over the period 1987 to 2002 whereas among *ladinos* they have declined from 5.0 to 3.7 over the same period (Ministerio de Salud Publica y Asistencia Social, 1989; Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., 2003). However, fertility rates differ greatly between rural and urban areas and at the local level. One previous earlier study attributed the observed similar birth rates, despite a higher CPR among *ladinos*, in one particular area of Guatemala to the prolonged breastfeeding patterns and likely differences in coital frequency and conception rate among Mayas (Anderson et al., 1980). Another study ascribed ethnic differences in fertility to socio-economic differences between *ladinos* and Mayas and found the independent effect of ethnicity to be small and insignificant (Holian, 1985). Increasingly, recent studies demonstrate the independent effect of ethnicity and cultural indicators on (reproductive) health outcomes (Bertrand et al., 2001; Gleit and Goldman, 2000; Zsembik and Fennell, 2005); however, no recent studies on Guatemala have investigated this effect on fertility. To answer the question raised by our analysis the theoretical framework of the theory of diffusion is used. This theory

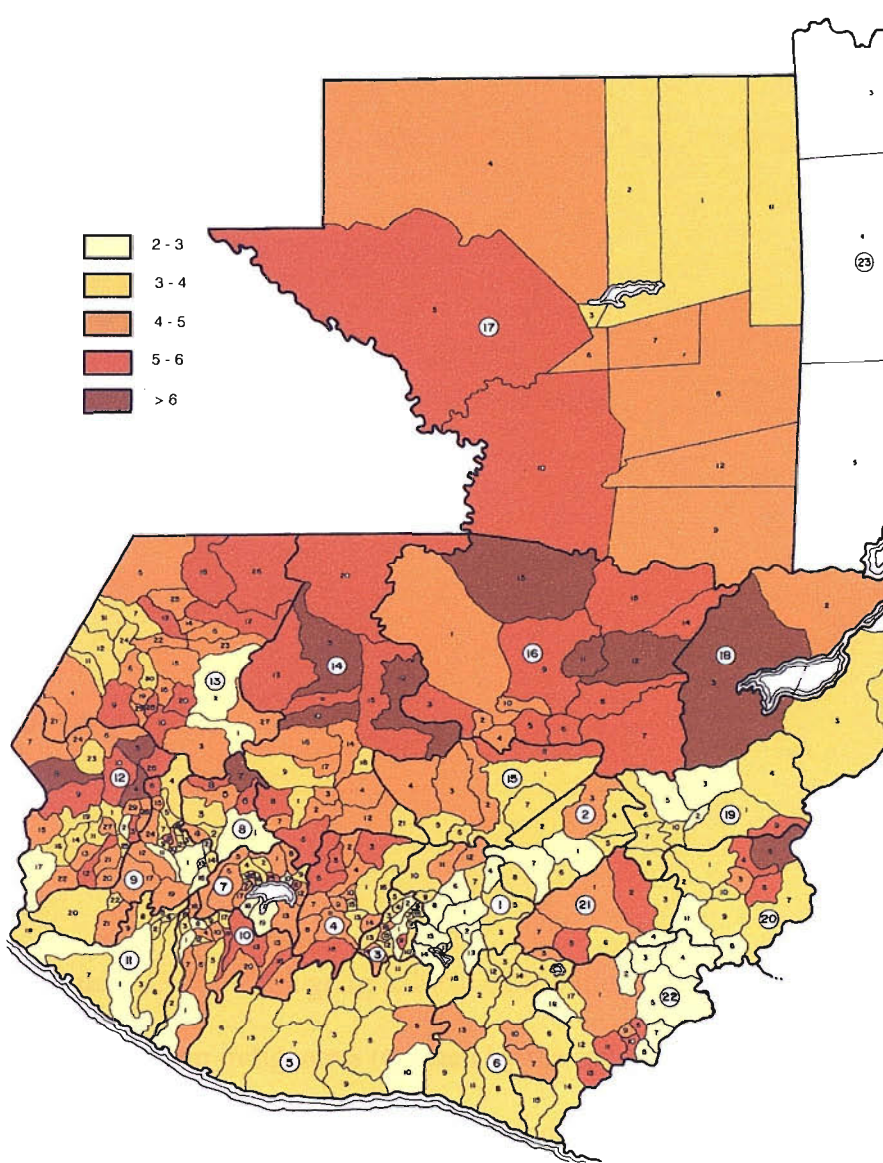
suggests that ethnic segregation in Guatemala could have prevented the spread of FP information and modern reproductive behaviour which delayed the start and prevented the smooth progress of the fertility transition. The aim of this analysis is two-fold: first, to measure the effect of ethnicity on fertility after controlling for socio-economic characteristics; secondly, to test the hypothesis whether the inherent characteristic of ethnicity, i.e. its segregation or heterogeneity particularly marked in the Guatemalan context, has also an independent effect on fertility.

In this section the 2002 census data at the level of the *municipio* is used to examine the socio-economic and cultural factors that are associated with current fertility (Guatemala is divided into 331 *municipios*). Figure 2.10 (see also Table 2.7 for a key) shows the geography of Guatemalan fertility in 2002. The map shows the TFR calculated for each individual *municipio* based on births in the last year.

There is a belt of high fertility stretching from the north-east of the country to the western Highlands. To the south of this and in the *departamento* of the capital, fertility levels are generally lower, though there is considerable local diversity, particularly in the south-west. The coastal areas of Escuintla, Santa Rosa and Retalhuleu have low fertility. Those areas are dominated by plantations where seasonal workers only spend up to six months during the harvest season.

Figure 2.10

Total fertility rate based on births in the last year in each of the municipios of Guatemala, 2002



Source: Census of Guatemala, 2002.

Table 2.7

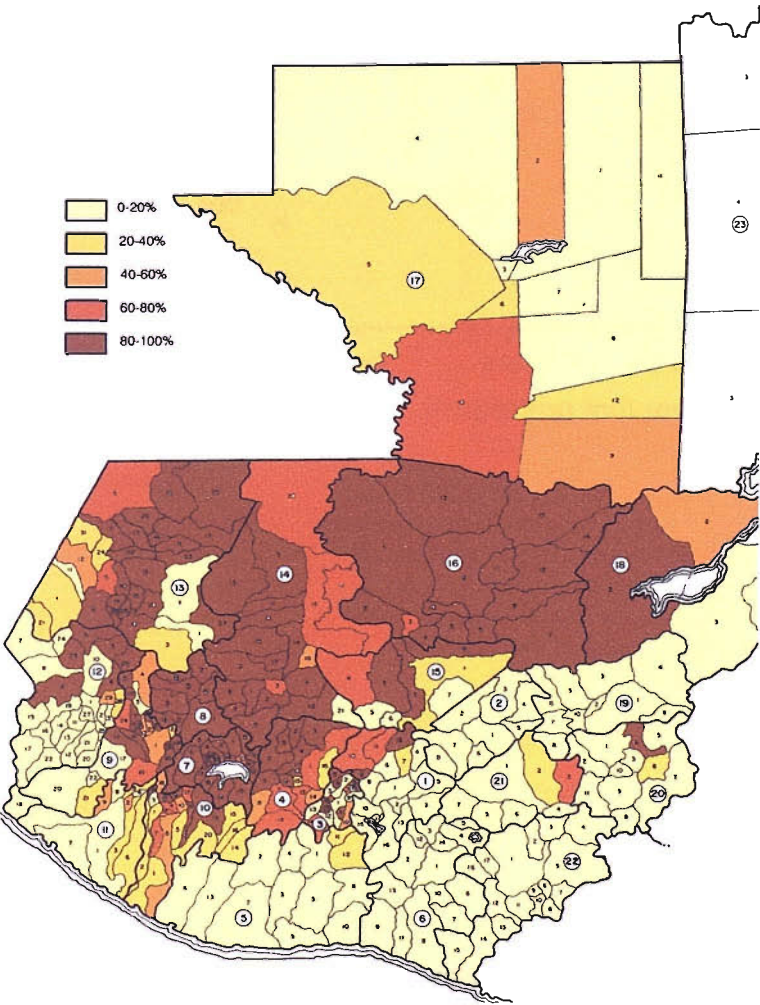
Names of the provinces ('departamentos') referred to by numbers in the maps

1. Guatemala
2. El Progreso
3. Sacatepequez
4. Chimaltenango
5. Escuintla
6. Santa Rosa
7. Solola
8. Totonicapan
9. Quetzaltenango
10. Suchitepequez
11. Retalhuleu
12. San Marcos
13. Huehuetenango
14. Quiche
15. Baja Verapaz
16. Alta Verapaz
17. Peten
18. Izabal
19. Zacapa
20. Chiquimula
21. Jalapa
22. Jutiapa
23. Belice

Figures 2.11 and 2.13 show the geographical distribution of two independent variables, the proportion indigenous (defined by the proportion of the population who consider themselves Maya, Xinka or Garífuna) and the proportion illiterate. The indigenous population is mainly concentrated in the northern and western highlands of the country in the provinces of Huehuetenango, Quiche, Alta and Baja Verapaz, Izabal and Totonicapan (see Table 2.7). In the provinces of Sacatepequez, Chimaltenango, Quetzaltenango and Suchitepequez there are several dark patches indicating *municipios* with a high concentration of indigenous people. Around Lake Atitlan (in province of Solola) the majority of the population is indigenous. In the east there are

smaller dark patches representing the Maya tribes, the Ch’orti and Poqomam. The majority of the *municipios* are predominantly indigenous (between 80% and 100%) or predominantly non-indigenous (between 0 and 20% of indigenous people); there are few *municipios* where the population is relatively mixed. This illustrates the high degree of geographical segregation among ethnic groups in Guatemala. The scatter plot (Figure 2.12) reveals a moderate association between the total fertility rate and proportion of indigenous people in each of the *municipios*.

Figure 2.11
Proportion indigenous people in each of the municipios of Guatemala, 2002



Source: Census of Guatemala, 2002.

Figure 2.12

Scatter plot of the total fertility rate and the proportion indigenous people in each of the municipios of Guatemala, 2002

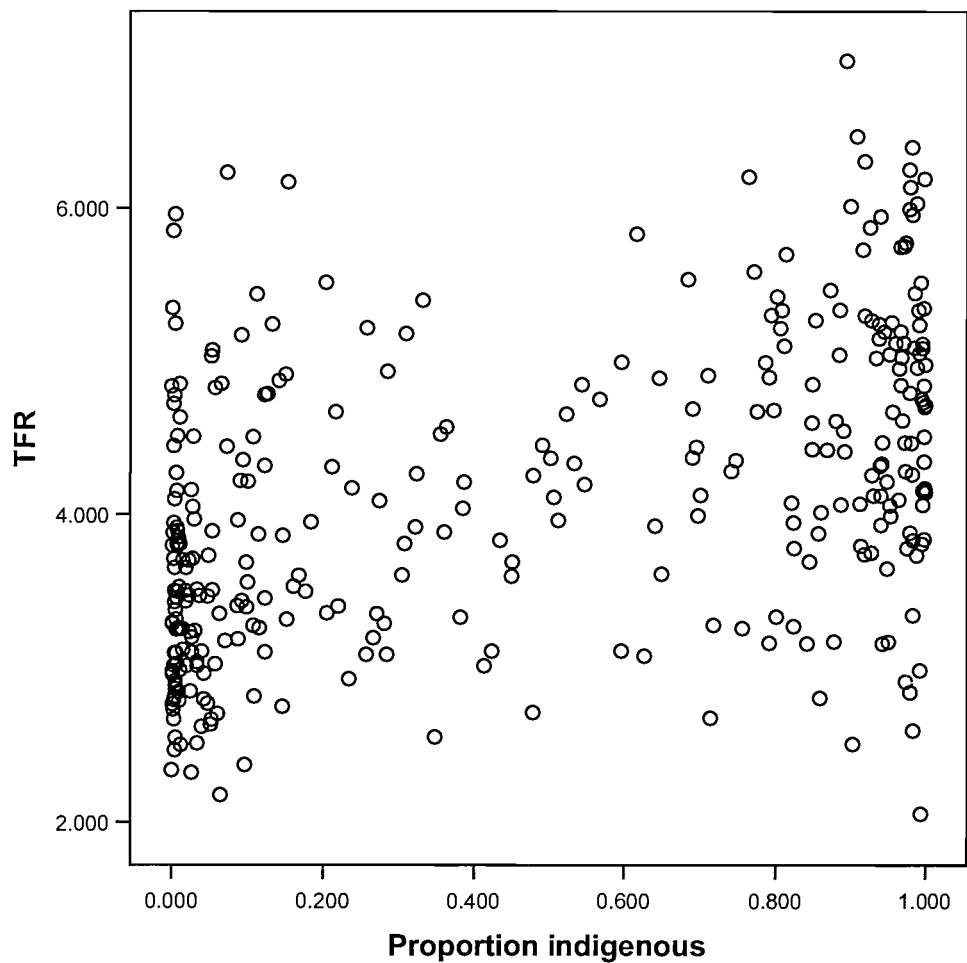
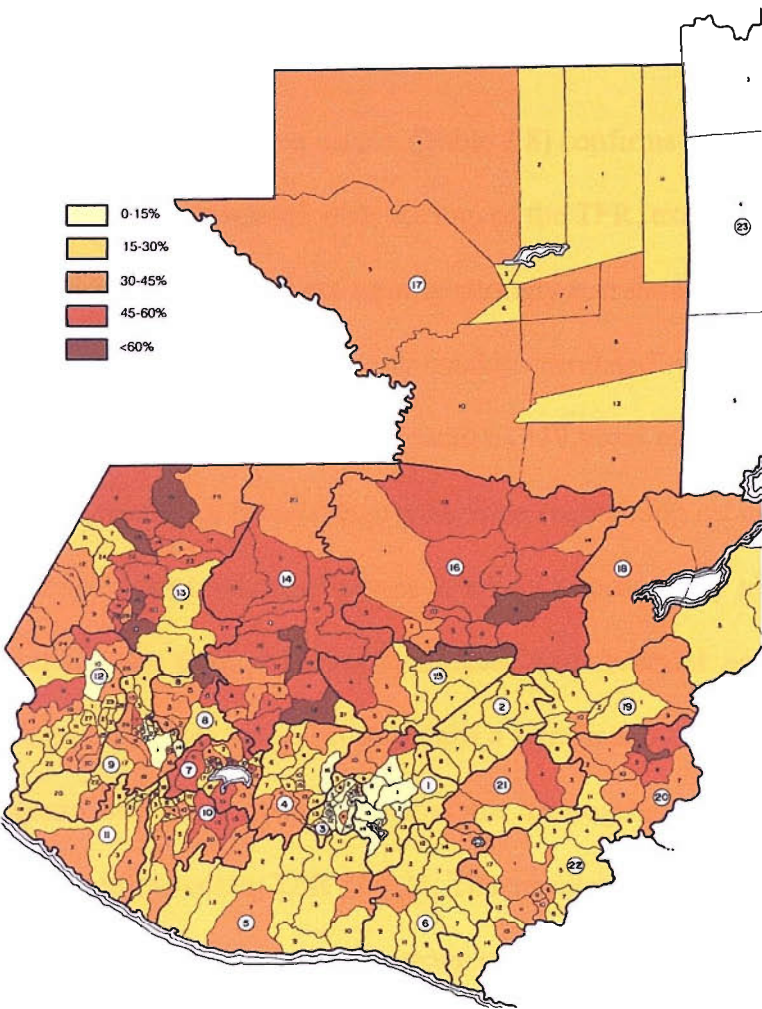


Figure 2.13

Proportion illiterate people in each of the *municipios* of Guatemala, 2002



Source: Census of Guatemala, 2002.

The map of the proportion of the population (above 7 years of age) illiterate (Figure 2.13) shows a higher degree of local-level variation between the *municipios* than the ethnicity map. High illiteracy is observed mainly in the Petén and northern regions (Quiché, Alta Verapaz and Izabal) of the country. The western and eastern regions show a patchy pattern with lower illiteracy in the capital *municipios* of the

provinces ('*departamentos*'). High levels of illiteracy are observed around Lake Atitlan and in the east of the country among the Ch'orti and Poqomam. There are common features in all three maps, with many of the *municipios* having high concentrations of indigenous people also showing high levels of fertility and illiteracy.

The correlation matrix (Table 2.8) confirms that all independent variables are significantly correlated with the \log_e of the TFR, except for the diversity index. Most independent variables are equally strongly correlated with one another, except for the diversity index which was only weakly correlated with proportion of indigenous people; proportion of women inactive (>19 years of age) and degree of heterogeneity. When creating a three-category variable (containing each thirty per cent of the *municipios*) that measures degree of ethnic heterogeneity a significant difference between the three groups of *municipios* was observed: *municipios* with the highest degree of ethnic heterogeneity show a significantly lower TFR (5.13) compared to the group with the lowest degree of ethnic heterogeneity (5.76); the intermediate groups has an intermediate TFR of 5.24. This result contradicted the hypothesis but was explained by the fact that the group of *municipios* with the highest degree of heterogeneity also represented the more urban *municipios* that attract indigenous people from the surrounding areas and therefore are likely to be characterised by a population that has assimilated more 'modern' behaviour.

Table 2.8

Correlation matrix for the exploratory regression analysis

	% Indigeno us	% Illiterate	% Inactive women (>19)	% Rural	% Give birth at home	Z-score for HH ¹ assets	Z-score for Dwelling Assets	Degree of hetero- geneity	Diversit y index
TFR	0.462	0.679	0.421	0.505	0.445	-0.479	-0.681	-0.155	(0.075)
% Indigenous	1	0.548	0.152	(0.030)	0.395	(-0.01)	-0.346	-0.197	0.131
% Illiterate		1	0.477	0.554	0.499	-0.488	-0.602	-0.223	(-0.06)
% Inactive women (>19)			1	0.569	0.433	-0.336	-0.480	-0.361	-0.116
% Rural				1	0.464	-0.464	-0.559	-0.221	(-0.05)
% Giving birth at home					1	-0.159	-0.479	-0.452	(0.037)
Z-score for HH assets						1	0.431	-0.158	(-0.09)
Z-score for dwelling assets							1	0.305	(-0.02)
Degree of hetero- geneity								1	0.176
Diversity index									1

Note: These correlations are based on 331 *municipios* in each case.

¹HH=Household

Coefficients in brackets are not significant ($p > 0.05$)

Table 2.9 presents the descriptive statistics of the study and independent variables used in the regression with their values for Jocotán *municipio*. The regression analysis revealed that the ‘best fit’ model included six independent

variables: the assets of the dwelling, the proportion of the population that is illiterate, the proportion of indigenous people, the assets of the household, the proportion resident in rural areas and the index of diversity (Table 2.10). The model was constructed keeping the proportion of indigenous people in the model to see how the impact of this variable (Model 1) changed after adding the other independent variables (Final model). Because of the study’s aim, we left the diversity index variable in the purpose-built model and it was significant at the 0.10 level ($p = 0.07$). Ethnic heterogeneity was not significant in the multivariate analysis. A stepwise regression model showed that the same variables were significantly ($p < 0.05$) associated with fertility. Diagnostic checks showed that the standardised residuals from the model were approximately normally distributed, and that there were no obvious geographical patterns in the residuals (Figure 2.14).

Table 2.9

Means and standard deviations for the variables used in the regression with values for Jocotán municipio

Independent and study variables in the regression	Mean (SD)	Value for Jocotán municipio
Log _e total fertility rate	1.38 (0.24)	1.74
Proportion illiterate	0.33 (0.13)	0.65
Z-score for the dwelling	0 (0.5)	-0.84
Z-score for the household	0 (0.5)	-1.23
Proportion indigenous	0.46 (0.4)	0.81
Diversity Index	0.23 (0.23)	0.38
Proportion living in rural areas	0.62 (0.25)	0.89
Measure of ethnic heterogeneity	6.29 (3.34)	6
Proportion of mothers giving birth at home	0.84 (0.22)	0.94
Proportion of mothers above 19 years of age inactive	0.80 (0.11)	0.82

Table 2.10

Results of a linear regression analysis of the natural logarithm (\log_e) of the total fertility rates among municipios (N=331) in Guatemala in 2002

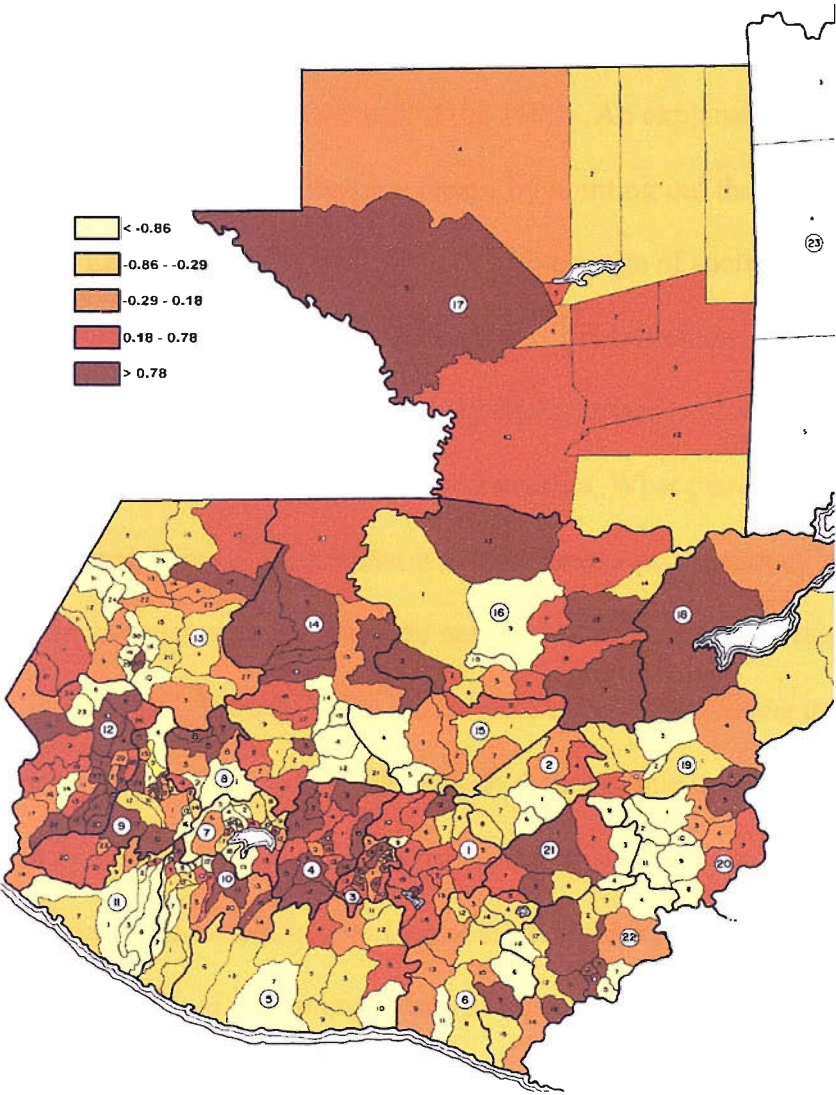
Covariate	B	95% CI	p
MODEL 1			
Proportion indigenous	0.27	0.21-0.33	0.001
R^2	0.46		
FINAL MODEL			
Proportion illiterate	0.34	0.12-0.56	0.001
Z-score for dwelling assets	-0.17	-0.21-(-0.13)	0.001
Proportion indigenous	0.13	0.07-0.20	0.001
Proportion living in rural areas	0.13	0.04-0.22	0.005
Z-score for household assets	-0.07	-0.11-(-0.03)	0.001
Diversity Index	0.07	0-0.14	0.07
Constant	1.11	1.04-1.18	
Sum of squares of the regression	19.18		
R^2	0.63		
N=331			

Note: Other variables included in the model but insignificant ($p > 0.05$) were: proportion of mothers giving birth at home; proportion of women above 19 years of age inactive; residence in a province-capital *municipio* or a national capital *municipio*, and the measure of ethnic heterogeneity.

Sources: Census of Guatemala 2002; vital registration data for 2001 obtained from the National Institute for Statistics.

Figure 2.14

Map of the residuals of the ordinary least squares regression based on the model predicting fertility for each of the 331 municipios in Guatemala



Source: Census of Guatemala, 2002.

4. Discussion

Why has Guatemala's fertility decline been so slow and hesitant?

This analysis has shown that fertility levels in Guatemala only slowly declined between the 1980s and the end of the 1990s. An explanation for this could be couched in 'classical' fertility transition terms, by pointing out that Guatemala lags behind other Latin American countries on a whole range of social and economic indicators, and therefore it also lags behind in its fertility transition. Nevertheless, Guatemala is not the only Latin American country characterised by socio-economic barriers that prevent the progress of the fertility transition. What particularly characterises Guatemala's population is that it has the largest proportion of indigenous people in Latin America among whom the majority has remained extremely poor and illiterate (Steele, 1994; Wearne, 1994; de Ferranti et al., 2004). Using the theory of diffusion (or the 'cultural version' of the classic demographic transition theory) as a framework for explaining fertility trends, Guatemala is faced with the additional challenge that its population is culturally heterogeneous and ethnically segregated. Social interaction between *ladinos* with more 'modern' reproductive behaviour, and Mayas is limited so that modern reproductive ideas and behaviour find it hard to spread (Bongaarts and Watkins, 1996; Gillin, 1951; Metz, 2001).

The multivariate analysis suggests that the independent variables with the strongest association with fertility are the proportion of people illiterate and the socio-economic indicator: assets of the dwelling. This corresponds with overwhelming evidence in the literature that education and other socio-economic indicators are

important determinants of the fertility transition (Weinberger, 1987; Casterline, 2001). After accounting for illiteracy and socio-economic assets of the dwelling and the household, the proportion of the population living in rural areas, the diversity index and the proportion of indigenous people are the only independent variables that are significantly associated with fertility levels at the *municipio*-level. The results suggest that ethnicity is associated (through cultural values and possibly discrimination shared and experienced by all indigenous people) with fertility. Even ethnic diversity, although just significant at the ten per cent level, has an effect on fertility once socio-economic factors are controlled for. However, the effects of both variables were relatively small in the final model, possibly because some of the impact of ethnicity on fertility was captured by the variables reflecting assets of the dwelling and illiteracy.

The final model was:

$$\text{Log}_e (\text{TFR}) = 1.11 + 0.34 X_1 - 0.17 X_2 + 0.13 X_3 + 0.13 X_4 - 0.07 X_5 + 0.07 X_6,$$

where X_1 is the proportion of the population illiterate, X_2 the average Z-score of indicators of dwellings' assets, X_3 the proportion of the population indigenous, X_4 the proportion living in rural areas, X_5 the average Z-score of indicators of households' assets, and X_6 the diversity index for the *municipio*. Using this equation, we can estimate that after accounting for illiteracy, the three socio-economic indicators, and the proportion indigenous, a *municipio* with a value of the ethnic diversity index one standard deviation (SD) higher than the mean would have a total fertility rate (TFR) 1.6 per cent higher than an otherwise identical *municipio* with a diversity index equal to the mean. The SD of the index of ethnic diversity is 0.23, and so the effect on the TFR of an increase of one SD in the index is to increase it by a factor equal to

$\exp(0.07 \times 0.23) = 1.016$, or 1.6 per cent. Similarly, a *municipio* with a proportion of indigenous people one SD higher than the mean would have a TFR 5.3 per cent higher than an otherwise identical *municipio* with an average proportion of indigenous people (the SD of the proportion of indigenous people is 0.4, so the TFR is increased by a factor equal to $\exp(0.13 \times 0.4) = 1.053$). A *municipio* with average values for all independent variables is predicted to have a TFR of 3.96 whereas a *municipio* with a value one SD above the mean for both the index of ethnic diversity and the proportion of indigenous people would have a predicted TFR of 4.23

There are, however, reasons to suppose that ethnicity and ethnic diversity may, for historical reasons, have had a greater effect on fertility than is indicated by the regression results. To illustrate this, an historical account is given here. The Spanish *conquista* of Guatemala in 1521 was particularly difficult because the country was very fragmented and inhabited by competing and fighting Maya tribes (Lovell, 1988). The extent of the diversity and the strong cultural identity of the different Maya communities were underestimated by the Spanish rulers and religious missionaries who arrived shortly after 1521. In order to control the population politically and administratively, the Spanish forced families to live in settlements usually around a church (*congregaciones*). According to Lovell (2000), displaced indigenous people who lived within the borders of the *congregación* often reunited following the borders of their previous indigenous community (*parcialidad*) and established a separate social and economical system according to their old traditions. The indigenous people from a certain *parcialidad* would not necessarily communicate or co-operate with the other *parcialidades* within the same *congregación* (Lovell, 2000).

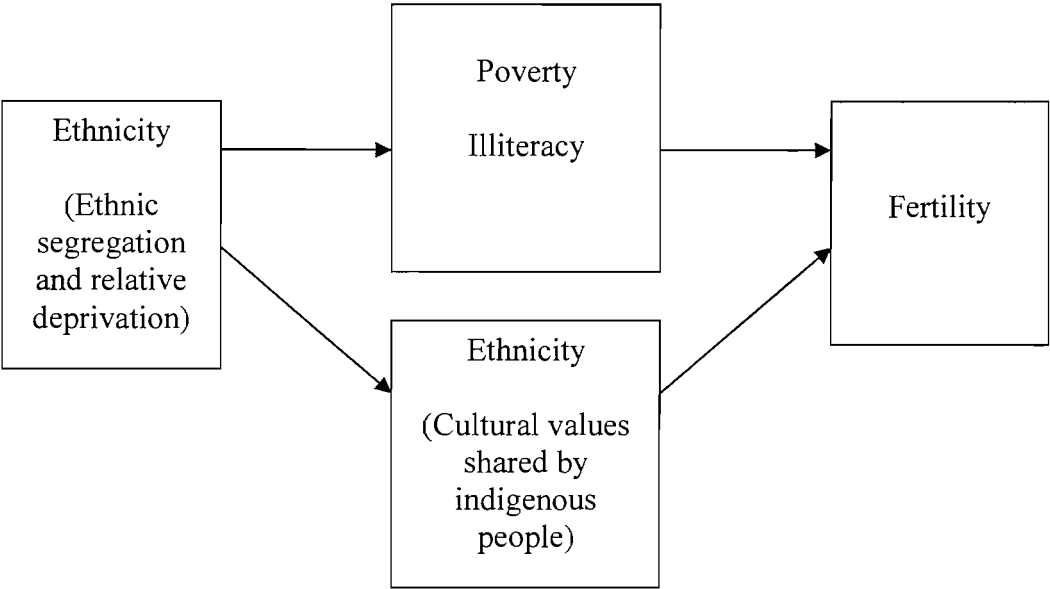
Under the colonial system immigrant Spaniards received tribute and services from the indigenous communities from whom they had appropriated land (Lovell, 1983). The north and west of the country, the cold land or *tierra fria*, were considered less attractive because of the high altitude and less fertile land (MacLeod, 1973). The indigenous population, by settling in the highlands managed to preserve a large part of their land, traditions and Maya culture (Lovell, 1988). The eastern part and southern coast were considered of high agricultural value and had a more pleasant climate (MacLeod, 1973). In those areas, cultural and biological mixing took place much more intensely and created a '*mestizo*' or *ladino* population generating a mixed Hispanic and pre-Columbian culture (La Farge, 1940).

The historical evidence suggests that ethnic segregation and deprivation have been an inherent part of the Guatemalan history and are linked to geographical location. The map on the proportion of indigenous people (Figure 2.11) shows that their concentration is still highest in the inaccessible and cold northern highlands. The literature also overwhelmingly shows that Guatemala is the country with the most unequal distribution in terms of health care services with its indigenous people one of the most underserved populations in Latin America (de Ferranti et al., 2004). The governmental policy of discrimination and repression against the indigenous people during the 36-year-long civil war which started in 1960 has only reinforced relative socio-economic deprivation of the indigenous people (Barry, 1992; Smith, 1990; Steele, 1994). Despite economic growth between 1988 and 1995, the socio-economic gap between Mayas and *ladinos* has widened (Beckett and Pebley, 2003) and so have fertility differentials. Therefore, being poor and illiterate can be considered a consequence of being indigenous. As such, it could be argued that ethnicity has a

direct (reflecting cultural values and customs shared by all indigenous people) and an indirect (reflecting the segregation and relative deprivation of the indigenous population) effect, through socio-economic indicators such as poverty and illiteracy, on fertility, as illustrated in Figure 2.15.

Why was there such an apparent halt in the decline of urban fertility after the late 1980s? One reason for the lack of progress in the fertility transition is that migrants from rural areas, who bring with them their higher fertility behaviour, are continually augmenting urban populations. Moreover, these migrants are ethnically diverse, which leads to high levels of ethnic heterogeneity and cultural diversity within urban areas potentially making the diffusion and acceptance of modern urban reproductive behaviour more difficult.

Figure 2.15
The effects of ethnicity and ethnic segregation on fertility



Since 1999 fertility has clearly declined, particularly in the year before the survey and census of 2002 for the age groups 20-24 and 25-29. A brief exploration of the DHS data for 1998/99 does not seem to indicate that median age at first union or first birth was much lower compared to the 2002 NMCHS. In fact, age at first union and age at first birth have stayed at the same level of 18.3 years and 20 years between the two surveys. Nonetheless, a smaller proportion of women reported to have entered their first union before the age of 15 in the 2002 survey as compared to the 1998/99 survey. The CPRs show a sharp increase in the use of modern contraceptives in the younger age groups and the traditionally very low CPR among indigenous people had increased from 12.6 per cent to 23.8 per cent. It is likely that facilitating access to birth control was lagging behind changes in fertility desires. Now that the costs of birth control have fallen thanks to the 2001 Reproductive Health Programme and other population policy initiatives, it is likely that fertility decline is precipitous (Casterline, 2001), particularly at a time when social and moral barriers to contraception have diminished (Bertrand et al., 2001; Metz, 2001). Finally, higher economic aspirations could also be driving the decline in desired fertility under improving socio-economic conditions for certain groups of the society (Beckett and Pebley, 2003; Casterline, 2001). 'Malthusianism of the poor' might be responsible for increased uptake of modern contraception thanks to its wider availability among the poorest sectors of the society (Zavala de Cosio, 1996).

5. Conclusion

Fertility levels in Guatemala have only slowly declined since the late 1980s but a sharp fertility decline seems to have occurred since the time of the 1998/99 DHS. Guatemala is lagging behind compared to other Latin American countries on the socio-economic characteristics that have traditionally caused fertility to decline. Since the creation of Guatemala, its indigenous population, currently representing roughly half of the total population, has shown signs of socio-economic underdevelopment compared to the *ladino* population. Levels of illiteracy in particular remain very high among the indigenous population. Additionally, historical evidence suggests that being poor and illiterate, as some of the more important determinants of fertility can almost be considered a consequence of being indigenous. Ethnic socio-economic inequality has been recognised to affect the pace of the demographic transition. However, the classic transition theory seems to provide only a partial explanation for the evolution of Guatemalan fertility.

Very slow change of traditional ideational systems among the indigenous population may partly explain why the fertility decline has been so slow. The theory of diffusion adds to the effect of ethnicity in that cultural diversity and ethnic segregation cause barriers that prevent the spread of modern reproductive ideas and behaviour among rural and urban populations. The results suggest that ethnicity and its inherent characteristic, diversity are important independent factors associated with fertility at the local level after controlling for socio-economic factors. The fact that Guatemala has such a large indigenous population that is socio-economically deprived and culturally very diverse and segregated, provides a very plausible partial

explanation for the late start and slow progress and of the Guatemalan fertility transition.

In terms of FP policies, vital for the decline in fertility in Latin America, Guatemalan governments have taken a long time to act. Until 2001, the Guatemalan government showed no commitment towards FP policies which is probably a major reason for comparatively low CPRs in Guatemala compared to the rest of Latin America. However, sustained funding from USAID with a focus on the provision of Depo-Provera since 1995 and continued FP development efforts by APROFAM, reinforced by the 2001 Reproductive Health Programme have dramatically increased supply and availability of contraceptives in rural and urban areas. Recent fertility estimates suggest that fertility has dropped substantially which seems to be a clear indication that FP programs have accelerated the decline of fertility.

To what extent ethnic segregation in reproductive behaviour, measured in terms of use of FP and modern pregnancy related care, is manifested at the level of a town and which factors determine reproductive behaviour among the indigenous population, will be studied in the following chapters.

References

Agency for International Development (1982). *Tierra y trabajo en Guatemala, una evaluación*. Guatemala City: AID.

Anderson J.E. and Morris L. (1977). Demographic transition in Guatemala. *Population Review* 21(1-2), 37-47.

Anderson J.E., Morris L., Pineda A. and Santiso R. (1980). Determinants of fertility in Guatemala. *Social Biology* 27(1), 20-35.

Arriaga E. (1970). The nature and effects of Latin America's non-Western trend in fertility. *Demography* 7, 483-501.

Barry T. (1992). *Inside Guatemala*. New Mexico: The Inter-Hemispheric Education Resource Centre.

Beckett M. and Pebley A.R. (2003). Ethnicity, language, and economic well-being in rural Guatemala. *Rural Sociology* 68(3), 434-458.

Bertrand J.T., Santiso G R., Cisneros R.J., Mascarín F. and Morris L. (1982). Family planning communications and contraceptive use in Guatemala, El Salvador, and Panama. *Studies in Family Planning* 13(6/7), 190-199.

Bertrand J.T., Pineda M.A. and Santiso Galvez R. (1979). Ethnic differences in family planning acceptance in rural Guatemala. *Studies in Family Planning* 10(8/9), 238-245.

Bertrand J.T., Seiber E. and Escudero G. (2001). Contraceptive dynamics in Guatemala. *International Family Planning Perspectives* 27(3), 112-118.

Bongaarts J. and Watkins S.C. (1996). Social interactions and contemporary fertility transitions. *Population and Development Review* 22(4), 639-682.

Boserup E. (1985). Economic and demographic interrelationships in Sub-Saharan Africa. *Population and Development Review* 11, 383-398.

Caldwell J.C. (1980). Mass education as a determinant of the timing of fertility decline. *Population and Development Review* 6, 225-256.

Casterline J.B. (2001). The pace of fertility transition: National patterns in the second half of the twentieth century. *Population and Development Review* 27(Supplement: Global Fertility Transition), 17-52.

Chackiel J. and Schkolnik S. (1996). Latin America: overview of the fertility transition, 1950-1990. In Guzman J.M., Singh S., Rodriguez G. and Pantelides E.A. (Eds.), *The fertility transition in Latin America* (pp. 3-26). Oxford, England: Clarendon Press.

Cleland J. and Wilson C. (1987). Demand theories of the fertility transition: an iconoclastic view. *Population Studies* 41, 5-30.

Cosío-Zavala M.E. (1997). Changements démographiques en Amérique Latine, famille, migration, urbanisation: nouveaux modèles, nouveaux comportements. *Cahiers des Amériques Latines* 22, 61-69.

de Ferranti, D., Perry, G. E., Ferreira, F. H. G., and Walton, M. (2004). Inequality in Latin America and the Caribbean: Breaking with history? Report number: 28989. Washington D.C: World Bank Latin America and Caribbean Studies.

Dyson T. and Murphy M. (1985). The onset of fertility transition. *Population and Development Review* 11(3), 399-440.

Gillin J. (1951). *The culture of security in San Carlos: A study of a Guatemalan community of Indians and Ladinos*. New Orleans: Middle American Research Institute, Tulane University.

Glei D.A. and Goldman N. (2000). Understanding ethnic variation in pregnancy-related care in rural Guatemala. *Ethnicity and Health* 5(1), 5-22.

Goldman N. and Gleit D.A. (2003). Evaluation of midwifery care: Results from a survey in rural Guatemala. *Social Science and Medicine* 56, 685-700.

Guzman J.M. (1994). The onset of fertility decline in Latin America. In Locoh T. and Hertrich V. (Eds.), *The onset of fertility transition in Sub-Saharan Africa* (pp. 43-67). Liege, Belgium: International Union for the Scientific Study of Population [IUSSP].

Guzman J.M. (1996). Social change and fertility decline in Latin America. In Guzman J.M., Singh S., Rodriguez G. and Pantelides E.A. (Eds.), *The fertility transition in Latin America* (p. XXii-XXXi). Oxford, England: Clarendon Press.

Holian J. (1985). The fertility of Maya and *Ladino* women. *Latin American Research Review* 20(2), 87-103.

Instituto Nacional de Estadística, Ministerio de Salud Pública y Asistencia Social, U.S.Agency for International Development (USAID), United Nations International Children's Fund (UNICEF), Fondo de Población de las Naciones Unidas (FNUAP), and Macro International (1999). Guatemala, Encuesta Nacional de Salud Materno-Infantil 1998-1999. Measure/DHS+. Calverton, Maryland: Macro International.

Instituto Nacional de Estadística and Ministerio de Salud publica y Asistencia Social and Macro International (1996). Guatemala, Encuesta Nacional de Salud Materno-Infantil, 1995. Calverton, Md., USA: Macro International.

Juárez, F. (1993) Las estrategias familiares en América Latina en los distintos estadios de la transición de la fecundidad. IV Conferencia Latinoamericana de Población: La Transición Demográfica en América Latina y el Caribe, 23rd of March 1993.

Kluck P.A. (1983). The society and its environment. In Nyrop R.F. (Ed.), *Guatemala: A Country Study* (pp. 41-81). Washington, D.C.: Headquarters, Department of the Army.

- La Farge O. (1940). Maya ethnology: The sequence of cultures. In Hay C.L. (Ed.), *The Maya and their neighbors* (pp. 282-291). New York: D. Appleton Century.
- Le Bras H. and Todd E. (1981). *L'Invention de la France*. Paris: Pluriel.
- Lesthaeghe R. (1977). *The decline of Belgian fertility, 1800-1970*. Princeton, NJ: Princeton University Press.
- Lovell G.W. (1988). Surviving conquest: the Maya of Guatemala in historical perspective. *Latin American Research Review* 23(2), 25-57.
- Lovell G.W. (2000). *A beauty that hurts: Life and death in Guatemala*. Austin: University of Texas Press.
- Lovell G.W. (1983). To submit and to serve: Forced native labour in the Cuchumatán highlands of Guatemala. *Journal of Historical Geography* 9(2), 127-144.
- Lovell G.W. and Lutz C.H. (1994). Conquest and population: Mayan demography in historical perspective. *Latin American Research Review* 29(2), 133-140.
- MacLeod M.J. (1973). *Spanish Central America: A socio-economic history: 1520-1720*. Berkeley, Los Angeles and London: University of California Press.
- Madhavan S., Adams A. and Simon D. (2003). Women's networks and the social world of fertility behaviour. *International Family Planning Perspectives* 29(2), 58-68.
- Metz B. (2001). Politics, population and family planning in Guatemala: Ch'orti Maya experiences. *Human Organization* 60(3), 259-271.
- Ministerio de Salud Publica y Asistencia Social (1989). Encuesta Nacional de Salud Materno-Infantil, 1987. Guatemala City and Columbia, US: Instituto de Nutrición de Centro America y Panama and Institute for Resource Development.
- Ministerio de Salud Pública y Asistencia Social (MSPAS), Instituto Nacional de Estadística (INE), Universidad del Valle de Guatemala (UVG), Contros para el Control y Prevención de Enfermedades (CDC), Agencia de los Estados Unidos para Desarrollo Internacional (USAID), Agencia Sueca de Cooperación para el Desarrollo Internacional (ASDI), Proyecto de Apoyo a la Reforma del Sector Salud (APRESAL/UE), Programa de las Naciones Unidas para el Desarrollo (PNUD), Fondo de las Naciones Unidas para la Infancia (UNICEF), Fondo de Población de las Naciones Unidas (FNUAP), Proyecto POLICY II, and CARE Guatemala (2003). Guatemala, Encuesta Nacional de Salud Materno-Infantil 2002. Guatemala City, Guatemala: Ministerio de Salud Pública y Asistencia Social.
- Monteith R.S., Anderson J.E., Pineda M.A., Santiso Galvez R. and Oberle M. (1985). Contraceptive use and fertility in Guatemala. *Studies in Family Planning* 16(5), 279-288.
- Montgomery M.R. and Casterline J.B. (1996). Social learning, social influence, and new models of fertility. In Casterline J.B., Lee R.D. and Foote K.A. (Eds.), *Fertility in the United States: New patterns, new theories (Supplement to Population and Development Review 22)* (pp. 151-175). New York: Population Council.

National Academy of Sciences (U.S.), National Research Council and Committee on Population and Demography (1983). *Indirect techniques for demographic estimation: Manual X*. New York: United Nations.

Oppenheim Mason K. (1997). Explaining fertility transitions. *Demography* 34(4), 443-454.

Psacharopoulos, G. and Patrinos, H. A. (1993). Indigenous people and poverty in Latin America: An empirical analysis. Report number: 30. Washington, D.C.: Latin America and the Caribbean Technical Department, The World Bank.

Rama, G. (1984) La evolución social de América Latina (1950-1980): Transición y cambio estructural. Paper presented at the Seminar on Development Alternatives in Latin America, Bogotá, Columbia.

Reed, H., Briere, R., and Casterline, J. (1999). The role of diffusion processes in fertility change in developing countries Report of a Workshop. Washington, D.C.: National Academy Press.

Retherford R.D. (1985). A theory of marital fertility transition. *Population Studies* 39(2), 249-268.

Rowland T.D. (2003). *Demographic methods and concepts*. Oxford: Oxford University Press.

Smith C.A. (1990). *Guatemalan Indians and the state: 1540-1988*. Austin, Texas: University of Texas Press.

Steele D. (1994). Guatemala. In Psacharopoulos G. and Patrinos H.A. (Eds.), *Indigenous people and poverty in Latin America: An empirical analysis*. (pp. 105-140). Washington D.C.: The World Bank.

Terborgh A., Rosen J.E., Santiso-Galvez R., Terceros W., Bertrand J.T. and Bull S.E. (1995). Family planning among indigenous populations in Latin America. *International Family Planning Perspectives* 21(4), 143-149.

Tuiran, R., Partida, V., Mojarro, O., and Zúñiga, E. (2003). Fertility in Mexico: Trends and forecast.

<http://www.un.org/esa/population/publications/completingfertility/completingfertility.htm>. Accessed on: 24-7-2003

Wearne, Phillip (1994). *The Maya of Guatemala*. Manchester: Manchester Free Press.

Weinberger M.B. (1987). The relation between women's education and fertility: Selected findings from the World Fertility Survey. *International Family Planning Perspectives* 13, 35-46.

Zavala de Cosio M.E. (1988). *Changements de fécondité au Mexique et politiques de population*. Paris: Université de Paris V.

Zavala de Cosio M.E. (1996). The demographic transition in Latin America and Europe. In Guzman J.M., Singh S., Rodriguez G. and Pantelides E.A. (Eds.), *The fertility transition in Latin America* (pp. 95-109). Oxford, England: Clarendon Press.

Zsembik B.A. and Fennell D. (2005). Ethnic variation in health and the determinants of health among Latinos. *Social Science and Medicine* 61, 53-63.

Chapter 3

Diversity in reproductive behaviour
among ethnic groups in Guatemala:
a case study of the Ch'orti area

1. Diversity in family planning use among ethnic groups in the Ch'orti area of Guatemala¹

1.1 Introduction

Despite efforts from international organisations and new governmental policies to promote family planning (FP) among the indigenous Mayas in Guatemala, their contraceptive prevalence rate (CPR)² remains low at 24 per cent compared to 53 per cent among the *ladino* population in 2002 (Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., 2003). Both CPRs remain well below the average of 65 per cent for Latin America (Population Reference Bureau, 2003).

Previous studies ascribed ethnic differences in uptake of FP to socio-economic and cultural differences between Mayas and *ladinos* and institutional barriers to contraceptive use faced by both ethnic groups (Warren et al., 1987; Ward et al., 1992; Remez, 1992; Bertrand et al., 1999; Terborgh et al., 1995). Persistent low CPRs among Mayas, mainly residing in the rural areas, have been attributed to their low demand for FP, poor access to FP services, and low quality of care at FP services accessible and affordable to the indigenous people (Seiber and Bertrand, 2002; Bertrand et al., 2001). However, the statistics on ethnic differentials in FP use are mainly based on studies that classified ethnic groups according to observable

¹ This paper has been published under a different format in: De Broe S, Hinde A, Matthews Z, Padmadas, S S (2005) 'Ethnic diversity in the use of family planning in Guatemala'. *Journal of Biosocial Sciences*; 37: 301-317.

² The proportion of married women of reproductive age, including those in consensual unions, who are using a method of contraception

characteristics such as dress and language. People who claimed to speak an indigenous language and wear traditional dress were classified as indigenous; everyone else was classified as *ladino*. Using these criteria, the 1998-99 Demographic and Health Survey (DHS) classified only 30 per cent of Guatemalans as indigenous, a percentage which is much lower than the generally accepted 50 per cent (Wearne, 1994).

Moreover, the indigenous population in Guatemala comprises more than 20 different Mayan communities, each with their own (used or non-used) language and traditional dress. Therefore, it is difficult to draw general conclusions about barriers to FP use among the indigenous population in Guatemala. Most of the previous demographic studies on ethnic differentials have focused on the northern highlands and the western part of Guatemala. Some of the largest Maya language groups (the Mam, Ki'che, Kaqchikel, Q'eqchi) live in these regions. Only two Mayan tribes live in the eastern part of Guatemala (the Poqomam and the Ch'orti) so that this area is generally considered *ladino*. This particular region of Guatemala is understudied and the few studies that included it focus almost exclusively on the *ladino* population. Metz (2001) has studied FP among the indigenous Ch'orti but from an anthropological perspective.

This study aims to quantify FP use and addresses two research questions: First, how does contraceptive use differ among the ethnic groups in the Ch'orti area? Second, how can these differences be explained? Our data come from two surveys, one conducted in the town of Jocotán in 2001 and one in the two nearby indigenous

villages (*aldeas*), Pacrén and Tesoro Abajo, in 1994³. Background information on FP provision in Jocotán comes from four exploratory in-depth interviews with FP service providers. The findings are then compared with data for the north-eastern region from the 1998-99 DHS.

1.2 Background

Our study is taking place in an area that reflects the process of ‘*ladinisation*’ in Guatemala where the majority of indigenous people have abandoned traditional customs such as speaking Ch’orti and wearing traditional dress. Hardly anyone in the town of Jocotán openly speaks Ch’orti and wears traditional dress and only in the more remote traditional *aldeas* have people retained these customs. In order to study ethnic differentials, this study classified ethnic groups based on self-identification and place of origin (born in an *aldea* as opposed to in a town or large city). Self-identification and place of origin have been recognised by scholars as better identifiers of ethnicity (Tax, 1937; Wade, 1997). The town of Jocotán is the capital of Jocotán *municipio* and the administrative centre of the Ch’orti area. Jocotán town is divided into five districts (San Lorenzo, San Sebastian, Cementerio-Nuevo, El Calvario and El Mitch) and is surrounded by 33 *aldeas*. The districts of San Lorenzo, San Sebastian and El Calvario are older and more prosperous than El Cementerio-Nuevo and especially El Mitch. The latter are fairly new districts mainly inhabited by immigrants from the *aldeas*. El Mitch is so-named because it was originally created to house people rendered homeless by the hurricane Mitch. Geographic access to the

³ The data from the *aldeas* were initially collected in order to obtain the degree in Sociology in 1994. Here the data were used to illustrate low contraceptive use in the *aldeas*, where the majority of the population in the *municipio* of Jocotán resides.

different FP services is more or less the same for all women residing in this town. In terms of FP provision, the governmental health centre (GHC) provides the oral pill, injections and condoms free of costs; modern contraceptive methods are also available in the pharmacies. Besides, the dispensary 'Bethania' and APROFAM (Asociación Pro-Bienestar de la Familia) volunteers sell modern FP methods (pills, injections, condoms and vaginal tablets) and provide information. Women who want to get sterilised or use the intra uterine device (IUD) are referred to the hospital of Chiquimula or Zacapa, both one hour's drive by car.

1.3 Data and methods

Data from two surveys are used in this analysis - one carried out in the town of Jocotán and one in two nearby *aldeas*, Pacrén and Tesoro Abajo. The results are compared to those from the 1998-99 DHS sample for the north-eastern region of Guatemala. The survey of Jocotán was carried out in September 2001. In that year, Jocotán town had approximately 3,750 inhabitants, of whom 985 were women of reproductive age. The sample included 173 ever-married or ever-in union mothers between 17 and 50 years of age. The sample only included ever-married or ever-in union mothers because the survey, limited in size due to limited resources, was designed to study ethnic differentials in FP and pregnancy-related care. The questionnaire was based on the Guatemalan DHS 1998/99 and covered the following topics: demographic characteristics, household composition, educational level of all members in the household and marital status, living conditions, religion, ethnicity, working status, use of health and pregnancy-related care, fertility and knowledge and use of FP of the mother (Annex II.1).

In 1994, a similar but more restricted survey was carried out in two nearby *aldeas* of Jocotán: Pacrén and Tesoro Abajo. Both were very different in their socio-economic and cultural characteristics (Table 3.1). In 1994, Pacrén had 1,282 and Tesoro Abajo 1,251 inhabitants. One out of two households was randomly selected and one woman per household between the ages 20 and 35 was interviewed, yielding a sample of 71 women in Pacrén and 80 women in Tesoro Abajo. For this analysis, only the mothers who were ever in union or married were selected from the two samples: 68 in Pacrén and 67 in Tesoro Abajo.

Each of the four types of FP providers in Jocotán was interviewed in-depth: one private doctor who collaborates with APROFAM; the APROFAM volunteer with the largest catchments area in Jocotán town; a senior member of the staff at the GHC; and the pharmacist located closest to the GHC. The interviews covered a wide range of issues such as available FP methods, clinic opening hours, problems with supply and demand for FP services and the observations of the providers about attitudes towards FP among the different communities and population groups in and around Jocotán (Annex II.2).

Table 3.1

Socio-economic and cultural characteristics of ever-married or in union mothers (percentages)

Socio-economic indicator	Jocotán 2001			Aldeas 1994 ¹		North-eastern region 1998-99 ²	
	SS/SL/C ³ (N=110)	El Cem-Nuevo (N=39)	El Mitch (N=24)	Tesoro Abajo (N=67)	Pacren (N=68)	Rural (N=316) ⁴	Urban (N=152) ⁴
With private WC	75	46	8	3	0	6	51
Household waste is collected	36	20	28	1	0	NA ⁵	NA
With electricity	93	95	33	52	0	37	90
Water supply:							
▪ private tap	98	97	17	92	12	53	54
▪ public supply	2	3	83	4	38	12	3
▪ river/stream	0	0	0	4	26	15	3
▪ other	0	0	0	0	24	20	40
Wall material:							
▪ mud/bamboo	32	28	63	98	100	42	21
▪ brick/metal sheets/cinder	68	72	37	2	0	25	58
▪ other	0	0	0	0	0	33	21
Roof material:							
▪ palm/straw	13	2	25	84	98	30	8
▪ metal or asbestos	73	90	75	16	2	58	77
▪ other	14	8	0	0	0	12	15
Floor material:							
▪ earth	18	27	50	79	100	64	23
▪ cemented/tiled	82	73	50	21	0	34	68
▪ other	0	0	0	0	0	2	29
Without education	14	28	71	49	96	48	17
Working outside of the house	62	44	4	7	0	19	49
Indigenous	46	87	96	100	100	15	7

¹ Sample in the *aldeas* limited to mothers between 20 and 35 years of age.

² Source: 1998-99 Guatemala Demographic and Health Survey.

³ SS/SL/C: San Sebastian, San Lorenzo and Calvario.

⁴ Weighted averages.

⁵ NA - not available.

1.3.1 Variable measurement and operational definition

The study outcome variable is use of FP. For the descriptive analysis, a woman is considered to be a user if she is using FP at the time of the survey or has used any type of contraception (modern or traditional), at least once in the past. In the multivariate analysis, the dependent variable is ‘current use’ (use at the time of the survey). This is because it is hard to interpret relationships between characteristics of the respondents measured at the time of the survey and use of contraception if the contraceptive use may have been restricted to some time in the past. Knowledge of FP was tested by asking the women which FP methods they knew (respondents were asked to state them) and whether there were days in a menstrual cycle during which a woman was more likely to become pregnant. When this question was answered positively, women were then asked to provide the timing of ovulation occurring during the menstrual cycle.

Ethnicity was measured through self-identification. The investigators asked women: ‘What do you consider yourself as? Indigenous or *ladina*?’ Those who clearly said that they considered themselves indigenous or *ladina* were so classified. However, many respondents said they were not fully indigenous anymore, as they were living in Jocotán and were ‘*ladinised*’. Some of these women replied to be of ‘mixed’ ethnicity and were as such classified. Because of small numbers, the ethnic groups ‘mixed’ and ‘*ladino*’ were merged in some of the descriptive tables and the multivariate analysis. In this study ethnicity was also measured in terms of place of origin: born in an *aldea* as opposed to born in a town or city (Jocotán, Camotán,

Guatemala City or Chiquimula). The three ethnic groups had similar age distributions. Marital status was classified as being currently married or in union or not. Parity was measured in terms of the number of pregnancies the women had carried to term. Age at first birth of the mother was measured in century months.

Socio-economic factors are important predictors of contraceptive use. In order to account for those, six different socio-economic variables were created. One variable for living conditions was created based on access to a private water tap, flush toilet, electricity, the walls of the house made out of brick as opposed to clay or palm, the roof of the house made of surface or tiles as opposed to palm or corrugated iron, the floor of the house made of concrete or tiles as opposed to earth and whether the kitchen was a separate room. Each of those indicators was given a one-point score and values ranged between zero and seven. This variable was subsequently divided in two categories with values up and including five indicating 'low' standards of living conditions and those higher than five indicating 'high' standards of living conditions. Employment of the women was a two category variable: 'working' (including women earning an income through home-based activities) or 'housewife'. Level of education was categorised as 'no education', 'primary education' (one to six years at school) and 'secondary or higher education' (from seven years at school onwards, including three women who had more than twelve years of education). One variable measured whether or not the household of the interviewee owned the house or land, both important socio-economic indicators in Guatemala. A last socio-economic variable measured whether or not the household had a member working in the capital or abroad (bringing in a first or second income).

This variable could also be considered a socio-cultural measure of exposure to cultural values outside of the community.

Socio-cultural indicators such as language and dress are irrelevant in the context of Jocotán town. Ethnic differences in reproductive health behaviour are likely to result from socio-cultural factors, here measured in terms of health practices and diet. The use of household remedies and consulting the health guardian or traditional healer indicate more traditional health attitudes, which might negatively affect contraceptive use. Residents in Jocotán claimed that there was no traditional healer residing in the town and that health guardians based in the town only have a referral role. The use of household remedies was combined with another cultural indicator. In Jocotán, people have access to a wide variety of food. Traditional people will be likely to retain the habit of eating *tortillas* and black beans. These socio-cultural indicators could also be considered indicators of socio-economic conditions (people who use household remedies and who mainly eat tortillas are also poor). The ‘socio-cultural’ variable was classified as whether or not the mother was using household remedies to cure illness *and* the household’s diet mainly consisted of *tortillas* and beans.

In the Jocotán survey, the question ‘did you want your last pregnancy at that moment or not?’ was compared with the DHS question whether the woman wanted her last child (the answers ‘wanted no more’ and ‘wanted later’ were combined). Reasons for non-use of FP among non-users and source of FP supply among users were elicited with open-ended questions allowing multiple answers, those commonly given in the Guatemalan context being pre-coded.

1.3.2 Sample characteristics

In 2001, the five districts of Jocotán town and the two *aldeas* exhibited a wide range of social and economic conditions (Table 3.1). Living conditions in El Mitch district of Jocotán town and the two *aldeas* are worse than in other districts of Jocotán, and indeed, worse than those in rural areas of the north-eastern region. Tesoro Abajo is an *aldea* that lies along the road from Jocotán to Chiquimula and has better living conditions than Pacrén. All of the mothers in Pacrén were staying at home, whereas only a small group of mothers in Tesoro Abajo were working outside of the house (Table 3.1).

In 1994, most women in Pacrén spoke Ch'orti and wore traditional dress whereas none of the women in Tesoro Abajo did so. All the women in the *aldeas* considered themselves 'indigenous'. This finding is at variance with the 1998-99 DHS results for the north-eastern region, in which there were, according to the DHS classification of ethnicity, very few 'indigenous' women at all (Table 3.1).

In the entire DHS sample for the north-eastern region, only four women lived in a household where the members spoke Ch'orti. This suggests not only that the DHS definition of ethnicity is underestimating the proportion of indigenous people, but also that the DHS may have under-sampled the Ch'orti women in the *aldeas* still characterised by their traditional dress and language. Because of the very small proportion of women in the north-eastern region classified as 'indigenous' in the DHS sample, it proved impossible to compare our findings on differentials in FP use by ethnicity. Instead, other stratifying variables such as rural or urban residence were used for comparison. This was justified by the fact that the indigenous population are

more likely to live in the rural areas whereas the *ladino* population are more likely to live in urban areas (Barry, 1992). The 1998-99 DHS was used instead of the 2002 survey because the data refer to a period in between the surveys of 1994 and 2001, and because it was intended to compare the Jocotán data with survey data dating from before the in 2001 newly introduced Reproductive Health Programme.

In 2001, half of the women in Jocotán town were working outside the household, a figure similar to that of urban areas in the north-eastern region as a whole. Most of these women were married at the time of the survey, 58 lived ‘in union’, 22 were divorced or separated and six were widowed. More than 60 per cent of the women interviewed in the town considered themselves ‘indigenous’, 15 per cent described themselves as of ‘mixed’ ethnicity and 23 per cent said they were ‘*ladina*’. All of the women in Jocotán spoke Spanish; only three sometimes wore traditional dress and only one knew the Ch’orti language. As such, the population in Jocotán is composed of three self-identified ethnic groups with no outward markers of ethnicity and would be entirely classified as *ladino* by the DHS. The ethnic groups in Jocotán differed in their socio-economic and socio-cultural characteristics (Table 3.2). ‘*Ladina*’ women were better educated, were more likely to have a high living standard and to work outside the house than any of the other ethnic groups. Women describing themselves as ‘indigenous’ and those born in an *aldea* scored the lowest on all socio-economic indicators and were more likely to rely on household remedies and to have a diet mainly consisting of *tortillas* and beans. In 2001, the majority of the women in Jocotán, independent of their ethnic group, were Catholic.

Table 3.2

Socio-economic and cultural differences between different ethnic groups, Jocotán, 2001 (averages and percentages with standard errors in parenthesis)

Indicator	Indigenous (N=108)	'Mixed' (N=25)	<i>Ladino</i> (N=40)	Born in <i>aldea</i> (N=77)	Born in a town or city (N=96)
Average number of years at school [*]	4.0 (0.4)	7.7 (0.9)	9.8 (0.6)	3.1 (0.5)	8.2 (0.4)
Percentage working outside the house ^{**}	44 (5.2)	48 (10)	68 (7.4)	34 (5.4)	63 (4.9)
Percentage with a living conditions score above five [*]	26 (4.2)	52 (10)	85 (5.6)	21 (4.6)	61 (5.0)
In case of illness, percentage using household remedies [*]	80 (3.8)	68 (9.3)	55 (7.9)	81 (4.5)	66 (4.8)
Percentage owning the house they live in [*]	65 (4.5)	68 (9.3)	80 (6.3)	56 (5.6)	79 (4.2)
Percentage owning a piece of land [*]	20 (3.8)	40 (9.8)	47 (7.9)	25 (4.9)	32 (4.7)
Percentage whose diet mainly consists of <i>tortillas</i> and beans ^{**}	98 (1.3)	72 (9.0)	70 (7.2)	95 (2.5)	81 (4.0)
Percentage of Catholic religion (NS)	77 (4.0)	68 (9.3)	90 (4.7)	78 (4.7)	79 (4.1)

^{**}Chi-square test significantly different at $p < 0.005$

^{*}Chi-square test significantly different at $p < 0.01$

NS: Non-significant

1.3.3 Study design

Because no listing of households was available of the town of Jocotán, a map was used indicating the five districts and number of dwellings (N=327) in order to select the sample. Because the districts in Jocotán differ in their socio-economic characteristics, a stratified random sampling technique was used with each of the five districts being represented in the sample according to their relative size (number of dwellings they contained). The confidence level was set at 95 per cent and the significance level for measuring the CPR at five so we aimed for a sample size of 177 dwellings. In each district approximately one out of two dwellings was randomly selected. The resulting sample therefore reflected the respective size (in terms of dwellings) of each district: 12 per cent of the sample dwellings were selected in the district Mitch; 26 per cent in El Calvario; 12 per cent in San Lorenzo; 30 per cent in San Sebastian and 20 per cent in Cementerio-Nuevo. One dwelling could comprise more than one household and the interviewer randomly selected only one household. Because it was going to be difficult to interview single women in this rural town about FP and nulli-parous women are unlikely to use pregnancy-related care (and a problem of small sample numbers might have arisen), one mother who was ever-married or in union was selected and interviewed in each household. In most cases this was (the partner of) the head of the household. The three interviewers⁴ managed to interview 90 per cent of the women in the selected households and interviews took approximately 45 minutes each. The author performed all the exploratory in-depth interviews with FP service providers. Data from these interviews were registered through tape recording, transcribed verbatim from Spanish to English and analysed

⁴ The author and two trained interviewers: Arleen and Teresa Amador

manually. In the *aldeas*, half of the women of the age group 20 to 35 years of age were selected by visiting every other hut and interviewed by the author. When comparing our data with the 1998-99 DHS sub-sample for the north-eastern region, only ever-married (or ever-in-union) mothers were selected. The averages for the DHS data were weighted. It should also be noted that the data for the *aldeas* refer only to the age groups 20 to 35 years whereas the data from Jocotán and the DHS include ages from 15 to 49 years. In the final stage of the analysis, a logistic regression was applied to understand the effect of ethnicity on current FP use controlling for demographic, socio-economic and cultural indicators.

1.4 Results

Nearly all women in the town of Jocotán had heard of FP. More than half had heard about it through a friend, over the radio or at the local GHC; around 40 per cent had heard about it through APROFAM or a doctor, and one fifth had heard about FP at ‘Bethania’, at school or the pharmacy. The majority of women in Jocotán were able to mention at least one modern FP method; one third mentioned they knew ‘natural’ methods. When asked to specify which natural method they knew, only a quarter of those women specified ‘rhythm’ or withdrawal, two women mentioned the method of Billings and one woman mentioned the avocado seed⁵. When asked whether or not a woman was more likely to become pregnant certain days of the month, the majority of ‘mixed’ or *ladina* women answered correctly (15 per cent did not know); only half of indigenous women answered correctly. Ethnic differences were observed in the ability of women to detect the correct ovulation time (Table 3.3).

⁵ Women reported to boil the seed and drink the extract

Table 3.3

Family planning indicators among ever-married or ever-in-union mothers (percentages with standard errors in parenthesis)

Family planning (FP) indicator	Jocotán 2001						Aldeas 1994 ¹		North-eastern region 1998/99 ²	
	Indigenous (N=108)	'Mixed' (N=25)	Ladino (N=40)	Born in an <i>aldea</i> (N=77)	Born in a city or town (N=96)	Total (N=173)	Tesoro (N=67)	Pacren (N=68)	Rural (N=316)	Urban (N=152)
Knowledge and intentions										
Heard of FP	91 (2.7)	100	100	91 (3.3)	97 (1.7)	94 (1.8)	98 (1.7)	70 (5.5)	-	-
Knows at least one modern method	90 (2.8)	96 (3.9)	100	91 (3.3)	95 (2.2)	97 (1.3)	26 (5.3)	22 (5.0)	80 (3.2)	99 (0.8)
Detects ovulation time	23 (4.0)	50 (10)	58 (7.8)	23 (4.8)	56 (5.0)	35 (3.6)	-	-	-	-
Current non-users planning to use FP in the future	36 (4.6)	46 (9.9)	61 (7.7)	35 (5.4)	49 (5.1)	41 (3.7)	52 (6.1)	38 (5.8)	14 (1.9)	23 (3.4)
Discussed FP with partner at least once	66 (4.5)	84 (7.3)	78 (6.5)	69 (5.2)	73 (4.5)	71 (3.4)	40 (5.9)	11 (3.8)	30 (2.6)	38 (3.9)
Unwanted last pregnancy ³	32 (4.5)	52 (9.9)	20 (6.3)	38 (5.5)	28 (4.6)	32 (3.5)	-	-	23 (2.7)	40 (3.9)
Current and past use										
Currently using:										
• Any method	31 (4.4)	48 (9.9)	67 (7.4)	26 (4.9)	55 (5.0)	41 (3.7)	2 (1.7)	0	20 (2.2)	51 (4.0)
• Modern method	23 (4.0)	40 (9.8)	55 (7.8)	16 (4.2)	47 (5.1)	33 (3.6)	2 (1.7)	0	13 (1.9)	42 (4.0)
Ever used:										
• Any method	50 (4.8)	60 (9.8)	85 (5.6)	45 (5.6)	71 (4.6)	60 (3.7)	9 (3.5)	2 (1.7)	32 (2.6)	69 (3.7)
• Modern method	36 (4.6)	48 (10)	77 (6.6)	30 (5.6)	62 (4.9)	47 (3.8)	5 (2.6)	2 (1.7)	23 (2.4)	61 (3.9)

¹ Sample in the *aldeas* limited to mothers between 20 and 35 years of age.

² Source: 1998-99 Guatemala Demographic and Health Survey-weighted averages.

³ For the north-eastern region: unwanted last child.

Knowledge of FP in 1994 differed between the two *aldeas* (Table 3.3). Most women in Tesoro Abajo but only 70 per cent of women in Pacrén had heard of FP. However, when asked which modern FP method they would prefer to use, few women in the two *aldeas* were able to mention one. Among current non-users a higher proportion in Tesoro said they planned to use FP in the future compared with Pacrén. A large proportion (30 per cent in Pacrén and 40 per cent in Tesoro Abajo) expressed a preference for ‘natural’ methods; however, none of the women were able to mention a specific natural method. In Tesoro Abajo, nearly half of the women reported talking about FP with their partner, whereas in Pacrén few women said that they did.

Use of FP was very low in the *aldeas* in 1994 (Table 3.3). In Pacrén, only one out of 68 ever-married (or ever-in-union) women had used FP (in her case the pill) in the past; none of the women were using FP at the time of the survey. In Tesoro Abajo, use of FP was slightly more common with six out of 67 women who were ever-married or in union ever having used a method (two a natural method, two being sterilised, one the pill and one the condom). These percentages are significantly lower than the rural percentages in the DHS data four years later but correspond with the CPRs between 1 and 5 per cent observed among certain linguistic Maya groups in the DHS 1998/99 (Bertrand et al., 2001).

In 2001, intentions to use FP among non-users differed among ethnic groups in Jocotán (Table 3.3). More than half of the non-using *ladina* women were planning to use FP in the future, whereas smaller proportions of women of ‘mixed’ ethnicity and indigenous women intended to do so. Women who were born in an *aldea* had

similar intentions to women who considered themselves indigenous whereas women born in a town or city were situated in between the 'mixed' and *ladino* women. One third of last pregnancies in Jocotán were unwanted at that time; a slightly higher proportion of women (40 per cent) in the urban north-eastern region stated that they wanted their last child later or wanted no more children at that time (Table 3.3). However, the confidence intervals around those differences included zero and were therefore insignificant.

In Jocotán, most of the *ladina* women had used FP in the past; but only half of the other women had ever used it (Table 3.3). Significant ethnic differences in FP use were observed between self-identified ethnic groups and the two ethnic groups classified according to place of birth. Use of modern FP methods represented at least 60 per cent of all method use (Table 3.3). People from Jocotán who were born in a city or town had very similar levels of contraceptive use to people from the urban north-eastern region and people who were born in an *aldea* had very similar levels of contraceptive use to people from the rural north-eastern region. Almost half of the current users were using female sterilisation (Table 3.4). This was followed, in descending order of popularity, by the pill, withdrawal and injections. The method mix did not differ much between the ethnic groups, except for the users who were born in an *aldea* who were more likely to rely on withdrawal than to be sterilised. In the past, women had used the pill (N=57), rhythm (N=35), the injection (N=26) or condoms (N=19). Only three had used the IUD and none had relied on male sterilisation or Norplant.

Table 3.4

Family planning methods used by ever-married or ever-in-union mothers at the time of the survey according to ethnic classification, Jocotán 2001

FP Method	Current users		Current users	
	Indigenous (N=34)	Mixed or <i>ladino</i> (N=39)	Born in <i>aldea</i> (N=20)	Born in town or city (N=53)
Sterilisation	14	19	5	28
Pill	6	7	4	9
Withdrawal	6	5	7	4
Injections	5	5	3	7
Rhythm	3	2	1	4
Condoms	0	1	0	1
Vaginal tablets	0	0	0	0
IUD	0	0	0	0
Herbs	0	0	0	0
Abstinence	0	0	0	0

The association between FP use and socio-economic characteristics is strong. Sixty per cent of the women with secondary education, nearly half of women with primary education, but only 20 per cent of women with no education were using contraception at the time of the survey in Jocotán in 2001. Housewives were less likely to use contraception (31 per cent) than women working outside of the house (53 per cent).

Table 3.5 presents the multiple reasons given for non-use of FP by ethnic group and classification among non-users in Jocotán (N=100). The most widely cited reasons given were ‘bad for your health’, ‘it is a sin’, not having sexual contact, ‘it is for God to decide’, no knowledge of FP, not being in a relationship, wanting more children and being pregnant. Reasons such as ‘it is a sin’ and ‘it is for God to decide’ were a common response among the indigenous women and women born in an *aldea*. In the *aldeas* (not shown), the religious reasons for non-use of FP, such as ‘God decides how many children one has’, were given by 35 women in Tesoro Abajo and 20 in Pacrén. Four women in Tesoro Abajo and five in Pacrén said FP was ‘bad for one’s health’. More than half of the women in Tesoro Abajo and nearly all women in Pacrén gave reasons such as ‘it is a sin’ and ‘we don’t know about these things’ for not using FP.

Table 3.5

Reasons for not using family planning among non-users in different ethnic groups: ever-married or ever-in-union mothers, Jocotán 2001

Reasons	Indigenous (N=74)	'Mixed' or <i>ladino</i> (N=26)	Born in <i>aldea</i> (N=57)	Born in a town or city (N=43)
'Bad for your health'	33	6	27	12
'It is a sin'	21	2	21	2
Not having sexual contact	18	5	12	11
'It is for God to decide how many children one has'	17	2	17	2
No knowledge of family planning	16	3	11	8
Not being in a relationship	13	6	7	12
Wanting more children	13	5	14	4
Pregnant at the time	11	6	11	6
Having infrequent sexual contact	11	4	8	7
Being post-menopausal	7	4	7	4
Thinks she is infertile	8	1	6	3
The husband does not want it	7	0	3	1
Breast-feeding at the time	6	0	4	2
Husband is not around	3	1	3	1
It is expensive	1	1	2	0
No knowledge where to get family planning	2	0	2	0

When asked where they would get their FP methods, most women (users and non-users) in all ethnic groups said they would go to the GHC or APROFAM (Table 3.6). '*Ladina*' and 'mixed' women and women born in a town or city were more likely to consult the private doctor for FP and fewer were unaware of where to get FP methods compared to 'indigenous' women or those born in an *aldea*.

Table 3.6

Intended source of family planning among ever-married or ever-in-union mothers according to ethnic group, Jocotán 2001

Intended source of family planning	Indigenous (N=108)	'Mixed' or <i>ladino</i> (N=65)	Born in <i>aldea</i> (N=77)	Born in a town or city (N=96)
Governmental Health Centre	69	38	52	55
APROFAM	32	34	19	47
Pharmacy	20	14	6	28
Private Doctor	3	11	4	10
'Bethania'	2	1	3	0
Doesn't know	16	4	13	7

Mothers in Jocotán had on average their first birth at 20.9 (± 4.7) years of age and an average 'parity' of 3.42 (± 2.4). A logistic regression model was used in order to study the effect of ethnicity on current use of FP controlling for age at first birth, parity, marital status, six socio-economic variables and a variable reflecting health practice and diet. The model was run separately using each of the ethnic classifications (self-identification and place of birth). Initially, all variables were put in the model individually. Having a member of the household working in the capital or abroad and ownership of the house did not have an effect on use of FP. Secondly, each of the individually significant covariates was introduced in the model together with one of the ethnicity indicators, and the three demographic variables (age at first

birth, age and parity). The socio-economic variables living conditions and educational level remained significant. Professional status, ownership of the land and the variable reflecting health practise and diet became insignificant. Those variables were excluded from the final model. The final model included age at first birth, parity, marital status and the two socio-economic variables. In the final model, level of education became insignificant when combined with living conditions. Table 3.7 shows the results using place of birth as a classification criterion for ethnicity. Ethnicity remains significant after controlling for the covariates. However, of the other variables only marital status and living conditions remain significant in the model. When using similar procedures in order to construct the model and using the variable ethnicity based on self-identification, the same result was obtained with the odds for *ladino* and of ‘mixed’ ethnicity women to currently use contraception being 2.6 times higher compared to indigenous women.

Table 3.7

Odds Ratios (with 95 per cent confidence intervals) from a logistic regression analysis of the probability of currently using any contraceptive method among ever-married or in union mothers in Jocotán town, 2001¹

Covariate	Odds ratio	95% CI	p
Born in a town or city	2.65	1.25-5.64	0.01
Born in an <i>aldea</i>	1.00		
Low living conditions	0.26	0.12-0.55	0.001
High living conditions	1.00		
Not married or in union	0.15	0.05-0.47	0.001
Married or in union	1.00		
Age at first birth	1.00	0.99-1.01	NS
Parity	0.97	0.82-1.15	NS
CONST	0.60		NS
Chi ² =44.72			

¹ Pregnant women were excluded from the analysis

1.5 Discussion and conclusion

This study investigated ethnic differences in the use of FP in the Ch'orti area of Guatemala. As in many parts of Guatemala, the people in the Ch'orti area have increasingly abandoned their customs of wearing traditional dress and speaking the Ch'orti language. Despite this, the majority of the people in the town of Jocotán and the *aldeas* consider themselves indigenous. In the Jocotán survey, self-identified *ladino* women had similar levels of contraceptive use as their counterparts elsewhere in Latin America (65 per cent). Women of 'mixed' ethnicity had a contraceptive level corresponding to the national DHS figure for *ladinos* (50 per cent) (Instituto Nacional de Estadística et al., 1999). Women, who regarded themselves as 'indigenous' varied in their uptake of FP according to their place of residence (30 per cent in Jocotán town and 1 per cent in the *aldeas*). The low levels of contraceptive use in the *aldeas* in 1994 corresponded with the low rates among certain linguistic groups in the west of the country (1-6 per cent) as recorded in the DHS 1998/99 (Bertrand et al., 2001). In 2001 in Jocotán, women who were born in an *aldea* had lower levels of contraceptive use compared with the self-identified indigenous women; women born in a town or city had similar levels of contraceptive use to the 'mixed'-*ladino* ethnic group. Using self-identification and place of birth in order to classify ethnic groups allowed very diverse contraceptive behavioural patterns to emerge, which would not have been identified in studies, such as the DHS 1998-99, using the classification based on language and dress. However, even though these percentages might be a better reflection of the ethnic diversity in Guatemala, the sample only included ever-married or in union mothers so the figures are likely to exceed CPRs among women of reproductive age. However, the sample included mothers *ever* in union or married which on its turn underestimated contraceptive

levels of use among mothers currently married or in union in the three ethnic groups by three to five percentage points.

This study included a multivariate analysis for the data of Jocotán 2001. The logistic regression showed that place of birth and self-identified ethnicity remained significant in determining contraceptive use despite controlling for socio-economic indicators such as living standard and education. Even though socio-economic differences remain important in explaining differences in contraceptive behaviour, women born in an *aldea* were less likely to use FP than women born in a town or city even when they live in similar conditions and have the same educational levels. Factors such as geographical access barriers to FP services, a low demand for FP among indigenous people and quality of care issues at FP services have been suggested in previous studies and were also identified in the Ch'orti area.

In the *aldeas* in 1994, it was likely that geographical access was an important barrier to FP services in Jocotán town. However, both *aldeas* in this study are situated close to Jocotán and in other *aldeas* geographical access barriers are likely to be even greater. When reaching the FP services in Jocotán, Ch'orti women are likely to face other barriers. Because most women from Pacrén speak Ch'orti, the advice on FP given at the GHC staffed by Spanish-speaking *ladinos* is likely to be badly understood. Additionally, the indigenous population from the *aldeas* might face discriminatory barriers at the health care services. The Ch'orti have been discriminated against and marginalized; they are seen as inferior in dress, language and knowledge by most *ladinos* (Metz, 2001). Indeed, *ladino* service providers in

2001 seemed to have low expectations towards the demand for FP among clients from the *aldeas*. As one APROFAM provider said:

'There is a need for this (FP) in the village...not that much in the aldeas, because there, they always have their baby...maybe that is why they have so many...'

The assumption that service providers would treat indigenous clients differently in a context where indigenous people have abandoned markers of ethnicity suggests that service providers would be able to tell or know who considers oneself indigenous and who does not. Acknowledging the fact that this is not the case, service providers do distinguish between people according to their place of residence, as reflected in the following statement:

'The far distant aldeas, there the women don't understand, but I think in the aldeas around Jocotán that are civilized like Pacrén, Tierra Blanca, there the women probably understand these things (FP)' (Provider at the GHC).

This discriminatory attitude among certain service providers, denied in some studies and unrecognised in areas where ethnic divisions are non-apparent, suggests that women from the *aldeas* interested in FP might be deprived from getting the needed FP information, or might even be deterred from accessing services at all.

Illiteracy, lack of FP information and rumours lead to poor FP knowledge and misconceptions and reinforce low demand for FP among the indigenous people. Indigenous women still think of FP as 'bad for one's health'. Service providers in Jocotán opine that socio-cultural factors remain the most important barriers to uptake of modern contraceptive methods among the indigenous people living on the outskirts of town and in the *aldeas*. The pill is unpopular because the indigenous Ch'orti men, who play an important role in the FP decision making processes, believe it allows their wives to have extra-marital affairs (Metz, 2001; Terborgh et al., 1995).

According to FP providers, the available FP methods have side effects that are unacceptable for the illiterate indigenous population. The menstrual disturbances caused by the injectable Depo-Provera might be too great a barrier to the indigenous people whose religious beliefs remain closely linked to the natural cycles of life. Ch'orti women and men still see FP as resisting God's will and interfering with destiny, FP is therefore seen as a great 'sin' (Terborgh et al., 1995; Metz, 2001). Religion, Catholic as well as Protestant, can therefore be considered a cultural barrier to contraceptive use among the more traditional indigenous people in the *aldeas* who tend to put great value in the words of religious leaders (often the only point of contact outside their community). People from the town, however, will also claim to be Catholic or Protestant, but will be more likely to take a secular approach. Their reproductive behaviour is less influenced by religious motives and use of family planning was therefore, as the in-depth interviews revealed, considered more a matter of individual choice.

Even though our data were collected in 1994, from the data collected in 2004 (Chapter Four), it seemed that only a very small minority of the population in the *aldeas* had adopted FP. Until now, fertility levels and infant mortality remain very high in the *aldeas* and socio-economic development is slow. Family planning providers report that Ch'orti mothers often respond '*there is enough earth to bury them (the dead children)*' when asked about their intention to use birth spacing methods in order to increase child survival. Also, because of the remoteness of the *aldeas* and the limited availability of health and educational services in those rural communities, new ideas hardly penetrate, further reinforcing ethnic segregation in reproductive behaviour (Bongaarts and Watkins, 1996).

The significant differences in contraceptive use between the different ethnic groups observed within Jocotán town cannot be ascribed to differential geographical access to FP services. The analysis controlled for a certain number of socio-economic indicators and included only an indirect measure of income (family member working in the capital or abroad). Financial costs of the different available health care services could be an important factor in explaining differences in uptake of health care services among the ethnic groups in this town. Even though the GHC has a reputation for offering poor quality health care, it remains the most important health care provider for the indigenous people. ‘Motivated’ indigenous women with a demand for FP would have to access the GHC in order to get FP methods for free. Likewise, for sterilisation, the most popular FP method, access to hospital facilities (which involves transport costs), is essential: the majority of *ladino* and ‘mixed’ ethnicity mothers delivered in hospital where they were sterilised the day after they gave birth to their last child; only half of indigenous mothers in Jocotán went to the hospital to deliver their last child.

Before the introduction of the Reproductive Health Programme in 2001, governmental commitment to FP policies was predominantly based on promises that failed to materialise due to political and religious resistance to FP and economic destabilisation caused by the long civil war (Santiso-Galvez and Bertrand, 2004). The lower use of FP among indigenous people compared to other ethnic groups within the town of Jocotán could be explained by a problem of demand and supply. Socio-cultural barriers, persistent illiteracy and poor FP knowledge among indigenous people fuel the low demand. On the supply side, service providers at

governmental health care services which indigenous people depend on, might treat clients from the *aldeas* differently from clients from the town. In order to formulate successful FP policies, it is crucial to identify the vulnerable communities first. This paper has identified the indigenous people, which represent 85 per cent of the total population of Jocotán *municipio*, as vulnerable with the majority of those people living in the *aldeas*. Chapter Four aims to explore in detail what kind of barriers ‘motivated’ indigenous people face, which inhibit them reaching the available FP services in the Ch’orti area and use FP.

2. Diversity in the use of pregnancy-related care among ethnic groups in Guatemala⁶

2.1 Introduction

The maternal mortality rate in Guatemala is estimated at 184 per 100 000 live births, among the highest in Latin America, and this figure is believed to be well below the true value (Schieber and Stanton, 2000; Kestler and Ramirez, 2000). Whilst most causes of maternal mortality are preventable through early detection and referral in case of complications, maternal health in Guatemala is affected by problems within the health care system and the quality of the care provided (Mahler, 1987; Acosta et al., 2000; Kestler and Ramirez, 2000). The institutional capacity of the health care system in 2000 only covered one fifth of birthing women (Pan American Health Organization, 2001). The governments' failure to prioritise reproductive health programmes have prevented improvements in maternal health in Guatemala; in particular its rural and indigenous population is lagging behind the rest of Latin America (de Ferranti et al., 2004).

Maternal health care in Guatemala is highly fragmented. During and after pregnancy, Guatemalan mothers rely on household remedies, use of traditional care (the traditional birth attendant or *comadrona*; the traditional healer or *curandero*) and so called 'formal', 'modern' (biomedical) private and public health care (services

⁶ This paper has been published under a different format in: De Broe S (2005), 'Diversity in the use of pregnancy related care among ethnic groups in Guatemala', *Journal of Family Planning and Reproductive Health Care*; 31 (3): 199-206.

provided at governmental health centres and posts, public and private hospitals and private doctors) (Pebley et al., 1996; Glei and Goldman, 2000). Until today, the majority of rural Guatemalan women give birth at home attended by the traditional birth attendant (TBA) whose role is social and wider than that of a service provider (Goldman and Glei, 2003). The TBAs are often elderly respected women within the community with no medical training or education who became *comadronas* by divine calling or experience (Lang and Elkin, 1997; Putney and Smith, 1989). The government in Guatemala started organizing basic medical training programs for TBAs in 1955 but very little happened until the end of the 1980s. In 1987, the government adopted the Safe Motherhood initiative, which recommended the incorporation of midwives into the national health care system (Acevedo and Hurtado, 1997; Leedam, 1985). Since then, *comadronas* have the obligation to take up medical training in hygienic and safe delivery, preventive care and recognition of complications and they are encouraged to refer women to biomedical services (Putney and Smith, 1989). The training programs have received a lot of criticism because of the condemnation of the *comadronas*' traditional practices, inappropriate didactic techniques and complex material for the older illiterate TBAs (Cosminsky, 1982; Lang and Elkin, 1997). Many TBAs still stay away from those training sessions but continue to attend deliveries (Hurtado and Sáenz de Tejada, 2001).

Socio-economic characteristics such as a woman's level of education and income, access to services, and cultural factors such as a woman's health beliefs and autonomy, the influence of her spouse and relatives determine whether or not a woman will seek modern pregnancy-related care services (Pebley et al., 1996; Cleland and van Ginneken, 1988; Celik and Hotchkin, 2000; Cosminsky, 1987). Poor

quality of care measured in terms of insufficient medical supplies and equipment, erratic patient management, long waiting and short consultation time, language barriers, and a condescending attitude of the *ladino* medical personnel will determine a mother's experience and future use of modern pregnancy-related care (Cosminsky, 1982; Hurtado and Sáenz de Tejada, 2001). The indigenous people in Guatemala are more likely to be poor, to live in rural areas where geographical access to health services remains a barrier, and to face the aforementioned quality of care issues at services affordable to them compared to the *ladino* population (Pebley et al., 2005; Pebley et al., 1996; Metz, 2001). Previous studies have highlighted these national differences in use of traditional and modern pregnancy-related care between and among ethnic groups (Acevedo and Hurtado, 1997; Glei and Goldman, 2000; Goldman and Glei, 2003). One study based on the 1995 Guatemalan Survey of Family Health, using ethnic classification based on self-report, language and dress, showed a clear gradation in use of modern pregnancy care services among the ethnic groups according to level of 'ladinisation' or traditionalism: *ladino* women were more likely to see a biomedical provider during their pregnancy compared to indigenous mothers; the most traditional indigenous mothers (not speaking Spanish and wearing traditional dress) almost solely relied on the TBA and household remedies (Glei and Goldman, 2000). This study found that socio-cultural indicators of autonomy and health beliefs explained the ethnic differences in the use of a biomedical provider, controlling for geographical access and socio-economic factors; ethnic differences remained significant when comparing ethnic groups which differed in terms of language and dress (*ladinos* versus indigenous women who did not speak Spanish and wore traditional dress).

This study is taking place in an area that reflects the process of ‘*ladinisation*’ in Guatemala where the majority of indigenous people have abandoned traditional customs such as speaking Ch’orti and wearing traditional dress. In order to study ethnic differentials, this study classified ethnic groups based on self-identification and place of origin (born in an *aldea* as opposed to a town or city). Its other value, as compared to previous studies, lies in the geographical scale of this area, where ethnic groups live in close proximity to one another. Hence, some confounding factors such as distance to services are controlled for. This study aims to quantify the use of modern pregnancy care services and to highlight the extent of ethnic variation in the use of these services. Furthermore, the indigenous population in Guatemala comprises of more than 20 different Mayan communities, each with their own language and traditional dress. Therefore, it is difficult to draw general conclusions about use of modern pregnancy-related care among the indigenous population in Guatemala. This study focuses on the understudied Ch’orti, residing in the north-eastern region, an area generally considered *ladino*.

This study aims to address the following research questions: first, which type of pregnancy care service is most commonly used by the various ethnic groups within the town of Jocotán? Secondly, where do women in the indigenous villages (*aldeas*), Tesoro Abajo and Pacrén, give birth and who attends them during delivery? And lastly, how can these differences, if any, be explained? The findings are then compared with the data for the north-eastern region from the Guatemalan 1998-99 DHS in order to see to what extent the results for the Ch’orti area differ.

2.2 Background

In 2001 in Jocotán, modern pregnancy-related care services included the private physicians' clinics that charged seven US dollars for a pre- or postnatal visit; the nurses and physicians at the GHC where services are free of charge and 'Bethania' that charges for health care but at reduced rates (a pre-natal visit costed two US dollars). Most of the indigenous people in the Ch'orti area rely solely on the GHC and the 'Bethania' for general health care. Geographic access to the different health care services that provide modern pregnancy-related care is more or less the same for all women residing in Jocotán town. Women who need hospital facilities in order to deliver or get a pre- or postnatal visit, must go to the county capital Chiquimula and pay for transport. In Chiquimula in 2001 private hospital charges varied between ten and fifteen US dollars per pre-natal visit. In terms of traditional pregnancy-related care there are the TBAs or midwives (*comadronas*) living in Jocotán. The term 'traditional birth attendant' has been criticized because of its ethnocentric connotation (Cosminsky, 2001). Even though the term 'midwife' (translated from the Spanish term *comadrona*) is preferred, it does not allow the distinction between traditional midwives based in the *aldeas* of whom most, in 1994, had not received any medical training, and 'midwives' with some medical training based in the town. In this area, the *comadronas* based in the town of Jocotán are those who have immigrated with the people from their *aldea* community; they will be referred to as 'traditional birth attendants'. By 2001, most had received some basic medical training through monthly meetings at the GHC. For the people from the *aldeas* in 1994, modern medical services were only available in Jocotán town. Accessing those services meant several hours' walking for those people who wanted to avoid paying

the private car services. In the *aldeas*, the people had access to household remedies and the TBA, whom they are more likely to trust and is likely to speak Ch'orti.

2.3 Data and methods

Data are collected via two surveys – the first carried out in the town of Jocotán and the second in two nearby *aldeas*, Pacrén and Tesoro Abajo. The results are compared to those from the 1998-99 DHS sample for the north-eastern region. The sampling technique, questionnaire, the organisation of the household survey and exploratory in-depth interviews with service providers in Jocotán town in September 2001 and the survey in the *aldeas* in 1994 were discussed in the previous section. The socio-economic and cultural differences between Jocotán town and the *aldeas* are illustrated in Table 3.1 of that section.

2.3.1 Variable measurement and operational definition

This study focused on the following pregnancy care outcomes: location and medical assistance during last delivery and use of pre- and postnatal care. Mothers in Jocotán (for the *aldeas* no information was collected on pre- and postnatal care) were asked whether or not they had received or sought at least one prenatal care (traditional or modern) visit during their last pregnancy or a postnatal visit after their last delivery, where it had taken place and who had assisted them. No distinction was made between whether the mother received a visit or whether she sought care herself and no specific questions were asked about the content of this visit. For the multivariate analysis the dependent variables are having delivered the last birth at home as opposed to a clinical setting and whether or not the mother sought or received a pre-

natal care visit during her last pregnancy. Since most mothers, who did not give birth at home, gave birth in the hospital of Chiquimula and very few gave birth in ‘other medical facilities’, these two categories were combined. Assistance during delivery and prenatal care was provided by a skilled medical person (a Belgian nun, the nurse or trained midwife, or physician) or non-skilled personnel (the TBA or a family member). In this study the interviewer registered the birth attendant with the highest qualification whereas the DHS allowed multiple answers for this question. For the location of pre- and postnatal care, the private doctors’ consultation room and the private clinic were combined because few mothers reported to have gone to a private clinic and it was sometimes difficult to distinguish the two.

One has to keep in mind that the data for the DHS refer to pregnancies that have taken place within the five years before the survey whereas in our sample all last births have been considered independently of when they occurred. This was justified as the study was mainly designed to detect differences in pregnancy-related care between ethnic groups in the town of Jocotán. The majority of mothers were living in Jocotán at the time of their last birth and similar pregnancy-related care services had been available in Jocotán for the last fifteen years. None of the interviewed mothers seemed to have problems recalling the care they received during their last pregnancy. Reasons for non-use of pre- and postnatal care among non-users were elicited with open-ended questions.

The measurement of the variables ethnicity, marital status, parity, socio-economic variables (living conditions, professional status, level of education, having a member of the household working in the capital city or abroad, and ownership of

land and the home) and the socio-cultural variable is presented in the previous section. Previous evidence has shown that all of those factors have a potential impact on the dependent variables under study.

2.3.2 Sample characteristics

The five districts of the town of Jocotán, its surrounding *aldeas* and the rural and urban areas of the north-eastern region exhibited a wide range of cultural and socio-economic conditions (Table 3.1). Contrary to the general assumption of this area being predominantly *ladino*, the majority of the population of Jocotán *municipio* (the majority of mothers in Jocotán town and all mothers from the *aldeas*) considered themselves indigenous. Because Tesoro Abajo lies along the road from Jocotán to Chiquimula, people have more contact with persons outside of their community and easier access to transport facilities to Chiquimula. It is generally considered more ‘*ladinised*’ (none of the mothers spoke Ch’orti or wore traditional dress) and in 1994 had better living conditions than Pacrén. In the 1998-99 DHS survey data for the north-eastern region, there were very few women classified as ‘indigenous’ (Table 3.1). In 2001, the different ethnic groups in Jocotán (classified according to self-identification and place of birth) clearly differed in their socio-economic characteristics (Table 3.2).

2.3.3 Study design

For the descriptive analysis, standard errors were presented where categories contained a sufficiently large number of mothers. Logistic regression was used to

study the effect of ethnicity on delivery of last birth at home as opposed to a clinical setting and whether or not the mother had taken up pre-natal care during her last pregnancy. The models controlled for parity, age at first birth, marital status, one cultural and six socio-economic indicators.

2.4 Results

Delivery care. Place and type of attendance during last delivery varied between the ethnic groups in Jocotán, the *aldeas* and place of residence in the north-eastern region (Table 3.8). The majority of mothers in Jocotán who considered themselves of ‘mixed’ ethnicity or *ladino* or who were born in a town or city, gave birth in a hospital setting whereas almost half of indigenous mothers or mothers born in an *aldea* gave birth at home. Correspondingly, differences were observed between the ethnic groups for attendance during last delivery (Table 3.8). Most *ladino* and ‘mixed’ mothers and those born in a city or town had a doctor assisting them during delivery whereas for less than half of the indigenous mothers and mothers born in an *aldea* this was the case. The remaining indigenous mothers and mothers born in an *aldea* relied on a TBA, nurse or midwife or a family member during delivery. Twenty-two mothers in Jocotán reported having been assisted by a ‘*comadrona*’ during their last delivery. Two of these mothers had their last child in their *aldea* before moving to Jocotán and were assisted by a TBA based in the *aldeas*. The remaining mothers reported to have preferred the care of a known TBA based in Jocotán above the modern pregnancy-related care available. Five per cent of indigenous mothers and eight per cent of mothers born in an *aldea* reported not to have been assisted by anyone. In the *aldeas* in 1994, only a few mothers in Tesoro Abajo and two mothers in Pacrén gave birth in a hospital (Table 3.8). In Pacrén,

family members (mother or husband) were consulted as often as the TBA for assistance during delivery. In Tesoro Abajo, the TBA was the most consulted attendant; about one quarter of the mothers relied on family members. In the urban areas of the north-eastern region in 1999, only a minority of mothers had delivered at home; most reported having received assistance from a doctor or nurse and a smaller group had assistance from the trained midwife. In the rural areas of the north-eastern region, the majority of mothers had delivered at home; one third of those mothers were assisted by a family member (Table 3.8). Contrary to the findings for the *aldeas* around Jocotán, relatively few mothers were assisted by a TBA.

Pre-and postnatal care. Almost all mothers in Jocotán received prenatal care, except for the indigenous mothers and those born in an *aldea* of whom 25 per cent reported not to have received or taken up pre-natal care. Less than half of the indigenous and ‘mixed’ mothers and the mother born in an *aldeas* reported to have taken up or received post-natal care (Table 3.8). Overall, the uptake of postnatal care is low among all ethnic groups. The uptake of prenatal care in rural and urban areas of the north-eastern region is very similar to the percentages observed for Jocotán women born in an *aldea* and town or city respectively. Compared to mothers in Jocotán, an (insignificantly) higher proportion of urban mothers in the north-eastern region received pre-natal care, whereas significantly fewer reported having received postnatal care. *Ladino* mothers had significantly more prenatal care visits compared to indigenous mothers (Table 3.9).

Table 3.8

Pregnancy-related care among ever-married or ever-in-union mothers (percentages with standard errors in parenthesis)

Family planning indicator	Jocotán						Aldeas		North-eastern region	
	2001						1994 ¹		1998/99 ²	
	Indigenous (N=108)	'Mixed' (N=25)	Ladino (N=40)	Born in an <i>aldea</i> (N=77)	Born in a city or town (N=96)	Total (N=173)	Tesoro (N=67)	Pacréñ (N=68)	Rural (N=316)	Urban (N=152)
Place of delivery: Home (as opposed to clinical setting) ³	40 (4.7)	13 (6.7)	7 (4.0)	42 (5.6)	13 (3.4)	28	87 (4.1)	97 (2.1)	73 (2.5)	11 (2.5)
Assistance during delivery:										
▪ Doctor	44	74	88	40	72	58	0	0	22	62.5
▪ Nurse/midwife	16	17	8	16	13	14	0	0	21	78
▪ Belgian nun	2	4	2	2	3	2	12	2	-	-
▪ Husband/mother	14	0	0	16	3	9	28	47	31	1.5
▪ TBA ⁴	18	5	2	18	9	13	51	44	10	4.0
▪ No one	6	0	0	8	0	4	9	7	2	0
Received prenatal care	77 (4.0)	92 (5.4)	98 (2.5)	75 (4.9)	91 (2.9)	84	-	-	74 (2.5)	95 (1.7)
Received postnatal care	41 (4.7)	39 (9.7)	75 (6.8)	42 (5.6)	54 (5.0)	49	-	-	14 (1.9)	29 (3.6)

¹ Sample in the *aldeas* limited to mothers between 20 and 35 years of age.

² Source: 1998-99 Guatemala DHS-weighted averages.

³ Includes the home of the traditional birth attendant for the DHS data

⁴TBA: Traditional Birth Attendant

In 2001, one third of the mothers who reported to have received or sought prenatal care consulted the hospital in Chiquimula; one third relied on the GHC in Jocotán (Table 3.9). The remaining mothers went to 'Bethania' or the private doctor. Self-identified *ladino* mothers were more likely to go to the hospital of Chiquimula or see the private doctor for pre-natal care compared to indigenous mothers; most indigenous mothers went to the GHC. Mothers who consider themselves of 'mixed' ethnicity have an intermediate behaviour between *ladino* and indigenous mothers; mothers born in an *aldea* have very similar behaviour to self-identified indigenous mothers. Even though the location of pre-natal care differs between the ethnic groups, most mothers report having seen a doctor or nurse during their pre-natal visit (Table 3.9). Half of mothers in Jocotán who had postnatal care report to have been to the hospital at Chiquimula and one fifth went to the GHC; the remaining mothers went to 'Bethania' or the private doctor for post-natal care. All mothers who had taken up postnatal care, independently of ethnic group, were the most likely to have been to the hospital at Chiquimula.

Reasons for non-use of prenatal care were mainly relevant for the indigenous mothers because most of the 'mixed'-*ladina* mothers took up prenatal care (Table 3.10). Indigenous mothers reported not being accustomed to use prenatal care and not finding it necessary. A number of mothers found the services too expensive or reported not to have confidence in them. Reasons for non-use of postnatal care existed in both self-identified ethnic groups. Most mothers in both ethnic groups did not find them necessary or said they were not used to taking up postnatal care. Some indigenous mothers reported that the services offered were too expensive, did not

have confidence in them or had to wait too long to be seen. *Ladino* and ‘mixed’ mothers also reported this last reason for non-use of postnatal care services whereas only one mother in this ethnic group reported not to trust the services and none mentioned costs as a reason for non-use.

Table 3.9

Location and attendance during pre- and postnatal care among ever-married or union mothers, Jocotán 2001 (percentages and averages with standard errors)

Pregnancy-related care	Jocotán					
	2001					
	Indige- nous	‘Mixed’	<i>Ladino</i>	Born in <i>aldea</i>	Born in a town or city	Total
Location of and attendance during prenatal care	(N=83)	(N=23)	(N=39)	(N=58)	(N=87)	(N=145)
Location:						
▪ GHC ¹	48	30	10	50	25	35
▪ Bethania	19	13	10	19	14	16
▪ Chiquimula	23	40	59	24	42	35
▪ Private Dr or clinic	10	17	21	7	19	14
Attendance:						
▪ Doctor	81	78	97	74	92	85
▪ Nurse	14	4	3	17	3	9
▪ Nun	5	18	0	9	5	6
Average number of prenatal care visits (SE)	4.1 (0.28)	5.2 (0.47)	6.1 (0.26)	3.8 (0.32)	5.4 (0.25)	4.7
Location of and attendance during postnatal care	(N=44)	(N=9)	(N=30)	(N=32)	(N=51)	(N=83)
Location:						
▪ GHC	35	0	7	31	14	21
▪ Bethania	21	22	11	16	18	17
▪ Chiquimula	35	66	55	41	47	46
▪ Private Dr or clinic	9	12	27	12	21	16
Attendance:						
▪ Doctor	75	87	97	78	86	84
▪ Nurse	16	13	3	12	8	8
▪ Nun	9	0	0	10	6	8

¹GHC= Governmental Health Centre

Table 3.10

Reasons for not taking up pre- and postnatal care among non-users in different ethnic groups: ever-married or ever-in-union mothers, Jocotán 2001

Reasons	Indigenous		'Mixed' or <i>Ladino</i>	
	Prenatal (N=25)	Postnatal (N=63)	Prenatal (N=3)	Postnatal (N=24)
Service understaffed	0	0	1	0
Waiting time too long	1	4	0	3
Services too expensive	7	9	0	0
Services too far away	2	3	0	0
Not necessary	9	41	0	20
Not accustomed to use	13	10	0	2
No trust in (modern) services	3	7	3	1

A logistic regression was used in order to study the effect of ethnicity on last delivery at home (as opposed to a clinical setting) and taking up pre-natal care or not, controlling for age at first birth, parity, marital status, six socio-economic variables and a variable reflecting health practice and diet. Because of the small sample size, the covariates were carefully selected. The two models (studying each of the two dependent variables) were run with each of the ethnicity variables: ethnicity based on self-identification (indigenous versus *ladino* or 'mixed') and based on place of birth (born in an *aldea* as opposed to a town or city). Initially, all covariates were introduced in the models individually. Secondly, each of the individually significant covariates was introduced in the model together with one of the ethnicity variables and the significant demographic variables. Ethnicity based on place of birth became insignificant when introduced in the model together with level of education. Therefore the results are presented and discussed using the independent ethnicity variable based on self-identification.

Professional status, having a family member working abroad or in the capital and marital status did not have an individual significant effect on giving birth at home. When introducing each individual covariate together with the ethnicity variable and the two significant demographic variables (age at first birth and parity) in the model which predicted place of last delivery, ownership of land became insignificant. Educational level appeared the strongest socio-economic predictor of giving birth at home: living conditions and ownership of the house became insignificant when introduced with level of education. The final model included level of education, ethnicity and the socio-cultural indicator of health practise and diet. The results for this model (Table 3.11) showed that the odds for indigenous mothers to give birth at home were more than ten times higher compared to the other ethnic group. In this model, age at first birth, level of education, the variable measuring health practise and diet also remained significant.

Table 3.11

Odds Ratios from a logistic regression analysis of the probability of given last birth at home as opposed to a clinical setting among mothers in Jocotán, 2001

Covariate	Odds ratio	95% CI	p
Indigenous ethnicity	10.46	2.06-53.18	0.005
<i>Ladino</i> or 'mixed' ethnicity	1.00		
No education	11.17	2.48-50.42	0.005
Primary education	1.82	0.41-8.06	NS
Secondary education	1.00		
Not relying on HH remedies & having a more extensive diet than <i>tortillas</i> and beans	0.08	0.02-0.39	0.005
Relying on HH remedies & having a more extensive diet than <i>tortillas</i> and beans	1.00		
Age at first birth	0.98	0.97-0.99	0.05
Parity	1.15	0.95-1.40	NS
CONST	0.36		NS
Chi ² =85.36			

Using similar procedures in order to construct the model predicting use of pre-natal care, all covariates, except level of education, became insignificant. The results (Table 3.12) showed that ethnicity remained a significant predictor of uptake of pre-natal care controlling for parity, age at first birth and level of education and that the odds for indigenous mother to take up prenatal care were 81 per cent lower compared to *ladino*-‘mixed’ mothers.

Table 3.12

Odds Ratios from a logistic regression analysis of the probability of taking up pre-natal care during last pregnancy among mothers in Jocotán town, 2001

Covariate	Odds ratio	95% CI	p
Indigenous ethnicity	0.19	0.04-0.77	0.05
<i>Ladino</i> or ‘mixed’ ethnicity	1.00		
No education	0.65	0.18-2.31	NS
Primary education	10.8	1.80-64.72	0.005
Secondary education	1.00		
Age at first birth	1.02	1.00-1.03	0.005
Parity	0.92	0.76-1.12	NS
CONST	0.34		NS
Chi ² = 46.82			

2.5 Discussion and conclusion

This study has highlighted the extent of ethnic diversity in the use of pregnancy care services in Guatemala. Within Jocotán town, significant differences were observed in the use of modern pregnancy-related care services between ethnic groups without markers of ethnicity such as language and dress. Our results showed a gradient in use of modern pregnancy-related care services: *ladino* mothers and those born in a town or city were more likely to take up or seek pre- and postnatal care, to deliver in a hospital setting and to be assisted by a doctor or nurse during delivery compared to

mothers who considered themselves of ‘mixed’ ethnicity. Indigenous mothers and mothers born in an *aldea* significantly differed from the other ethnic groups and were the least likely to have received or taken up any of these types of modern pregnancy-related care services. The results confirm previous suggestions that ethnic differences are likely to persist even when geographical access to services improves or is removed as in Jocotán town (Glei and Goldman, 2000). The differences between Jocotán and the *aldeas* could however be explained by the unequal governmental provision of health and education between the rural and urban areas and problems with access to services from the *aldeas* (Gragnolati and Marini, 2003).

The differences in the uptake of modern pregnancy-related care services between ethnic groups in Jocotán illustrate the extent of ethnic segregation at the level of a town. Ethnic differences remained significant controlling for socio-economic indicators; however, levels of household income are likely partly to explain the ethnic differentials. Financial affordability of the private pregnancy-related care services and transportation facilities to the hospital at Chiquimula will affect their uptake. The results suggest that cultural factors and level of education influence the decision about where mothers give birth; whereas socio-economic factors explain the differences in the uptake of prenatal care. The data did not allow controlling for many socio-cultural variables so that the ethnic differentials could be ascribed to unmeasured socio-cultural indicators. Socio-cultural barriers such traditional health beliefs, level of autonomy of the women and fear and embarrassment about being examined by, or a condescending attitude among the, male *ladino* staff might have been responsible for the lower uptake of modern pregnancy care services among indigenous mothers (Cosminsky, 1987; Cosminsky,

2001; Hurtado and Sáenz de Tejada, 2001; Instituto de Nutrición de Centro América y Panamá (INCAP) et al., 1997).

The data showed that those mothers who had taken up pre- or postnatal care, independent of ethnic group, had seen a doctor or nurse during their visit but differed in the type of service they accessed. Testimonies of people within the town and interviews with key informants in the study area revealed that the care at the GHC is perceived to be of low quality due to lack of staff, sporadic supply of medicine, long waiting times and the condescending attitude of some of the staff towards the patients from the *aldeas*. Despite this, it remains the most important modern pregnancy care provider for the indigenous population. The most likely reason for this is that the GHC provides services free of charge (which could partly explain the condescending attitude of staff serving clients who do not seem to pay for services). For most indigenous people in Guatemala modern health care is considered a luxury (Gragnolati and Marini, 2003). This suggests that financial constraints will limit the women who no longer have socio-cultural barriers to overcome, to access the private services they might consider to be of better quality.

This study shows that *ladino* mothers are more likely to seek or receive prenatal care compared to indigenous mothers whereas a recent study shows that most mothers (96 percent) in all ethnic groups did get some prenatal care at some stage during their pregnancy (Goldman and Gleit, 2003). All the mothers who reported not to have taken up prenatal care, except three, were indigenous. The three non-indigenous mothers had experienced an unwanted last pregnancy and gave lack of trust in the services as a reason for not taking up pre-natal care. One third of the

indigenous mothers who did not use pre-natal care had their last delivery in their *aldea* and did not report the TBA's visits during that pregnancy; the others originated from an *aldea* and lived in the poorer districts Mitch or Cementerio-Nuevo. It is unlikely that these mothers did not see anyone during their pregnancy. They might have thought the question about pre-natal care only referred to biomedical services. However, service providers in Jocotán claimed that women who have moved to Jocotán from the *aldeas* are reluctant to report their traditional practices and reliance on a TBA. The fact that untrained TBAs are legally prohibited from practising (Cosminsky, 2001) could also make those TBAs to urge their clients not to declare their visits.

Data on pregnancy-related care was collected in only two *aldeas* around Jocotán in 1994. The conditions of pregnancy-related care in these *aldeas* were poor despite their close proximity to Jocotán but probably better than in most of the *aldeas*, located further from Jocotán. The data for the *aldeas* were collected in 1994. Since then, the rural population has grown and large numbers of people from the *aldeas* have moved to Jocotán town. In 2001 in the *aldeas*, access to water and electricity had also improved compared to 1994. However, the health care conditions observed in the *aldeas* in 1994 still reflect the reality observed in most remote rural areas in Guatemala (Goldman and Gleit, 2003; Gragnolati and Marini, 2003) and represent the conditions of health care for 80 per cent of the population in the Ch'orti area (Metz, 2001). The use of modern pregnancy care services in the *aldeas* was lower in 1994 than in the rural areas of the north-eastern region in 1998-99. This might suggest that the health care among the indigenous Ch'orti population is different from the rest of the region; that the Ch'orti are under-represented in the

DHS sample or that maternal health care provisions have improved since 1994.

Indeed, during the fieldwork of 2001, a TBA from Pacrén reported being enrolled in a training programme at the GHC but complained about the lack of remuneration for her increased responsibilities. Training, recognising and remunerating the TBAs whilst extending coverage of modern pregnancy care in the *aldeas*, improving quality of care at the GHC and providing easy access to a maternity ward in Jocotán remain priorities in the Ch'orti area.

Both studies on FP and pregnancy-related care have limitations because they are based on a limited sample and small numbers of mothers in each ethnic category. The studies were mainly focussed on the town of Jocotán; nevertheless, this is a fairly 'typical' town in this region. The data collected in the *aldeas* for the age groups 20 to 35 does not allow extrapolation for the older age groups. In the FP paper, no real CPRs could be calculated because only mothers were included in the sample. The fact that the survey recorded the pregnancy care service provider with the highest qualification, excluded potential combinations (traditional and modern) of pregnancy care. It is likely that some mothers who reported having seen a biomedical provider, consulted a *comadrona* at the same time (Glei and Goldman, 2000). The collected data in Jocotán and the *aldeas* based on past use of FP and pregnancy care during and after the last pregnancy independently of when it occurred, which might have introduced recall errors. However, this might have equally affected all ethnic groups and does not change our main conclusions. Further research possibilities will be discussed in Chapter Five.

According to the criteria used by the DHS, Jocotán would be considered entirely *ladino*. However, previous studies indicated that ethnicity is not just a proxy of socio-economic or educational class (Beckett and Pebley, 2003). Therefore, just using the DHS data would not allow the detection of the ethnic gradation in use of FP and pregnancy-related care services in Jocotán and disguise ethnic diversity in reproductive health outcomes. Failure to consider the extent of cultural diversity in Guatemala has already shown negative effects on the successful outcomes of public health policies (Justice, 1986).

References

- Acevedo D. and Hurtado E. (1997). Midwives and formal providers in prenatal, delivery and postpartum care in four communities in rural Guatemala: complementarity or conflict? In Pebley A.R. and Rosero-Bixby L. (Eds.), *Demographic diversity and change in the Central-American isthmus* (pp. 271-326). Santa Monica: RAND.
- Acosta A.A., Cabezas E. and Chaparro J.C. (2000). Present and future of maternal mortality in Latin America. *Gynaecology and Obstetrics* 70, 125-131.
- Barry T. (1992). *Inside Guatemala*. New Mexico: The Inter-Hemispheric Education Resource Centre.
- Beckett M. and Pebley A.R. (2003). Ethnicity, language, and economic well-being in rural Guatemala. *Rural Sociology* 68(3), 434-458.
- Bertrand J.T., Guerra de Salazar S., de Mazariegos L., Salanic V., Rice J. and Kolars Sow C. (1999). Promoting birthspacing among the Maya-Quiche of Guatemala. *International Family Planning Perspectives* 25(4), 160-167.
- Bertrand J.T., Seiber E. and Escudero G. (2001). Contraceptive dynamics in Guatemala. *International Family Planning Perspectives* 27(3), 112-118.
- Bongaarts J. and Watkins S.C. (1996). Social interactions and contemporary fertility transitions. *Population and Development Review* 22(4), 639-682.
- Celik Y. and Hotchkin D.R. (2000). The socio-economic determinants of maternal health care utilization in Turkey. *Social Science and Medicine* 50(12), 1797-1806.
- Cleland J. and van Ginneken J.K. (1988). Maternal education and child survival in developing countries. The search for pathways of influence. *Social Science and Medicine* 27(12), 1357-1368.
- Cosminsky S. (1987). Women and health care on a Guatemalan plantation. *Social Science and Medicine* 25(10), 1163-1173.
- Cosminsky S. (2001). Maya midwives of Southern Mexico and Guatemala. In Huber B.R. and Sandstrom A.R. (Eds.), *Mesoamerican healers*. Austin TX: University of Texas Press.
- Cosminsky S. (1982). Childbirth and change: a Guatemalan study. In McCormack C.P. (Ed.), *Ethnography of fertility and birth* (pp. 195-219). New York: Academic Press.
- de Ferranti, D., Perry, G. E., Ferreira, F. H. G., and Walton, M. (2004). Inequality in Latin America and the Caribbean: Breaking with history? Report number: 28989. World Bank Latin America and Caribbean Studies.
- Glei D.A. and Goldman N. (2000). Understanding ethnic variation in pregnancy-related care in rural Guatemala. *Ethnicity and Health* 5(1), 5-22.

Goldman N. and Gleit D.A. (2003). Evaluation of midwifery care: Results from a survey in rural Guatemala. *Social Science and Medicine* 56, 685-700.

Gragnolati, M. and Marini, A. (2003). Health and poverty in Guatemala. World Bank Policy Research Working Paper 2966. The World Bank.

Hurtado E. and Sáenz de Tejada E.S. (2001). Relations between government health workers and traditional midwives in Guatemala. In Huber B.R. and Sandstrom A.R. (Eds.), *Mesoamerican healers*. Austin, TX: University of Texas Press.

Instituto de Nutrición de Centro América y Panamá (INCAP), Ministerio de Salud Pública y Asistencia Social (MSPAS), USAID, and DHS/Macro International (1997). Salud materno infantil en cuatro departamentos del Antiplano. Resultados de la encuesta de proveedores de salud. Guatemala City, Guatemala: INCAP.

Instituto Nacional de Estadística, Ministerio de Salud Pública y Asistencia Social, U.S. Agency for International Development (USAID), United Nations International Children's Fund (UNICEF), Fondo de Población de las Naciones Unidas (FNUAP), and Macro International (1999). Guatemala, Encuesta Nacional de Salud Materno-Infantil 1998-1999. Measure/DHS+. Calverton, Maryland: Macro International.

Justice J. (1986). *Policies, plans, and people: Foreign aid and health development*. Berkeley: University of California Press.

Kestler E. and Ramirez L. (2000). Pregnancy-related mortality in Guatemala, 1993-1996. *Pan American Journal of Public Health* 7(1), 41-46.

Lang J.B. and Elkin E.D. (1997). A study of the belief and birthing practices of traditional midwives in rural Guatemala. *Journal of Nurse-Midwifery* 42(1), 25-31.

Leedam E. (1985). Traditional birth attendants. *International Journal of Gynaecology and Obstetrics* 37(2), 77-87.

Mahler H. (1987). The safe motherhood initiative: A call to action. *Lancet* 1(8534), 668-670.

Metz B. (2001). Politics, population and family planning in Guatemala: Ch'orti Maya experiences. *Human Organization* 60(3), 259-271.

Ministerio de Salud Pública y Asistencia Social (MSPAS), Instituto Nacional de Estadística (INE), Universidad del Valle de Guatemala (UVG), Centros para el Control y Prevención de Enfermedades (CDC), Agencia de los Estados Unidos para el Desarrollo Internacional (USAID), Agencia Sueca de Cooperación para el Desarrollo Internacional (ASDI), Proyecto de Apoyo a la Reforma del Sector Salud (APRESAL/UE), Programa de las Naciones Unidas para el Desarrollo (PNUD), Fondo de las Naciones Unidas para la Infancia (UNICEF), Fondo de Población de las Naciones Unidas (FNUAP), Proyecto POLICY II, and CARE Guatemala (2003). Guatemala, Encuesta Nacional de Salud Materno-Infantil 2002. Guatemala City, Guatemala: Ministerio de Salud Pública y Asistencia Social.

Pan American Health Organization (2001). Country health profile 2001: Guatemala. <http://www.paho.org>. Accessed on: 20-10-2002.

Pebley A.R., Goldman N. and Robles A. (2005). Isolation, integration, and ethnic boundaries in rural Guatemala. *The Sociological Quarterly* 46, 213-236.

Pebley A.R., Goldman N. and Rodriguez G. (1996). Prenatal and delivery care in childhood immunization in Guatemala: Do family and community matter? *Demography* 32(2), 231-247.

Population Reference Bureau (2003). Family planning world wide 2002 data sheet. <http://www.prb.org/Template.cfm?Section=PRB&template=/ContentManagement/ContentDisplay.cfm&ContentID=6887>. Accessed on: 1-8-2003.

Putney, P. J. and Smith, B. (1989). The training and practice of traditional birth attendants in Guatemala. A Report prepared for the Technologies for Primary Health Care (PRITECH). Report number: PN ABF-275. Washington, D.C.: USAID.

Remez L. (1992). Contraceptive prevalence rates low in Guatemala; use is much more likely among working women. *International Family Planning Perspectives* 18(2), 77-79.

Santiso-Galvez R. and Bertrand J.T. (2004). The delayed contraceptive revolution in Guatemala. *Human Organization* 63(1), 57-67.

Schieber, B. and Stanton, C. (2000). Estimates of maternal mortality in Guatemala. Report number: SR-00-01. Guatemala: Macro International, Inc.

Seiber E.E. and Bertrand J.T. (2002). Access as a factor in differential contraceptive use between Mayans and *Ladinos* in Guatemala. *Health Policy and Planning* 17(2), 167-177.

Tax S. (1937). The *municipios* of the mid-western Highlands of Guatemala. *American Anthropologist* 39(3), 423-444.

Terborgh A., Rosen J.E., Santiso-Galvez R., Terceros W., Bertrand J.T. and Bull S.E. (1995). Family planning among indigenous populations in Latin America. *International Family Planning Perspectives* 21(4), 143-149.

Wade P. (1997). *Race and ethnicity in Latin America*. London and Sterling, Virginia: Pluto Press.

Ward V.M., Bertrand J.T. and Puac F. (1992). Exploring socio-cultural barriers to family planning among Mayans in Guatemala. *International Family Planning Perspectives* 18(2), 59-65.

Warren C.W., Monteith R.S., Johnson J.T., Santiso-Galvez R., Guerra F. and Oberle M.W. (1987). Use of maternal-child health services and contraception in Guatemala and Panama. *Journal of Biosocial Science* 19, 229-243.

Wearne, Phillip (1994). *The Maya of Guatemala*. Manchester: Manchester Free Press.

Chapter 4

Quality of care and provider bias at
family planning services in the Ch'orti
area of Guatemala

1. Introduction

Guatemala is among the countries in Latin America with the highest levels of fertility and the lowest levels of contraceptive use. In particular, the indigenous Maya people lag behind in terms of contraceptive use compared to the *ladino* population (Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., 2003). Explanations for these differences, such as better geographical and economic access to family planning (FP) services among the *ladino* population and low demand for FP due to socio-economic conditions (low employment outside the home, low education, rural residence) and socio-cultural barriers among the more isolated indigenous people have been previously suggested in the literature (Bertrand et al., 2001; Chen et al., 1983; Terborgh et al., 1995). Guatemala also has a long history of failing to prioritise FP policies. Several attempts to install FP programs have met resistance and been prevented by Catholic and Protestant religious groups, leftist movements of policy makers and universities and the ethnic divisions and political unrest during the 30 year civil war (1965-1996) (Santiso-Galvez and Bertrand, 2004). The Integral System of Health Care (SIAS¹) set up in 1997, which incorporated private² and public health organizations in order to improve access to health care services in the rural (more indigenous) areas³, changed little in terms of access to FP services in those areas. However, the first Reproductive Health Programme in January 2001 and the Social Development and Population Law effective from October 2001 made

¹ Sistema Integrado de Atención de Salud

² Private organisations include NGO's called 'Prestadores de salud'

³ Also referred to as extension of (health) coverage: 'Extensión de cobertura'

reproductive health part of a national policy and instigated several initiatives to improve geographical access and availability of FP services.

Previous research has shown some effect of physical access (those living close to FP facilities are more likely to use FP) but also shows that it is not the deciding factor for contraceptive uptake (Tsui and Ochoa, 1992; Seiber and Bertrand, 2002). Quality of care or *perceived* quality of care at FP service delivery points appears as or more important than access in order to increase contraceptive use among the hard-to-reach Maya indigenous population (Bertrand et al., 2001; Seiber and Bertrand, 2002). It is generally recognised that quality of care and client-provider interaction at FP services greatly determine client's satisfaction and therefore uptake and continuation of contraceptive use (Bruce, 1990; Jain, 1989). One study in Bangladesh showed that women who perceived their interaction with service providers as positive were more likely to continue contraceptive use than women who perceived it to be of poor quality (Koenig et al., 1997). Where economic resources in the health care sector are limited, the prioritisation of high quality of care services over making services widely accessible has been suggested to attract clients who are willing to travel and pay small sums for FP methods (Bertrand et al., 1995).

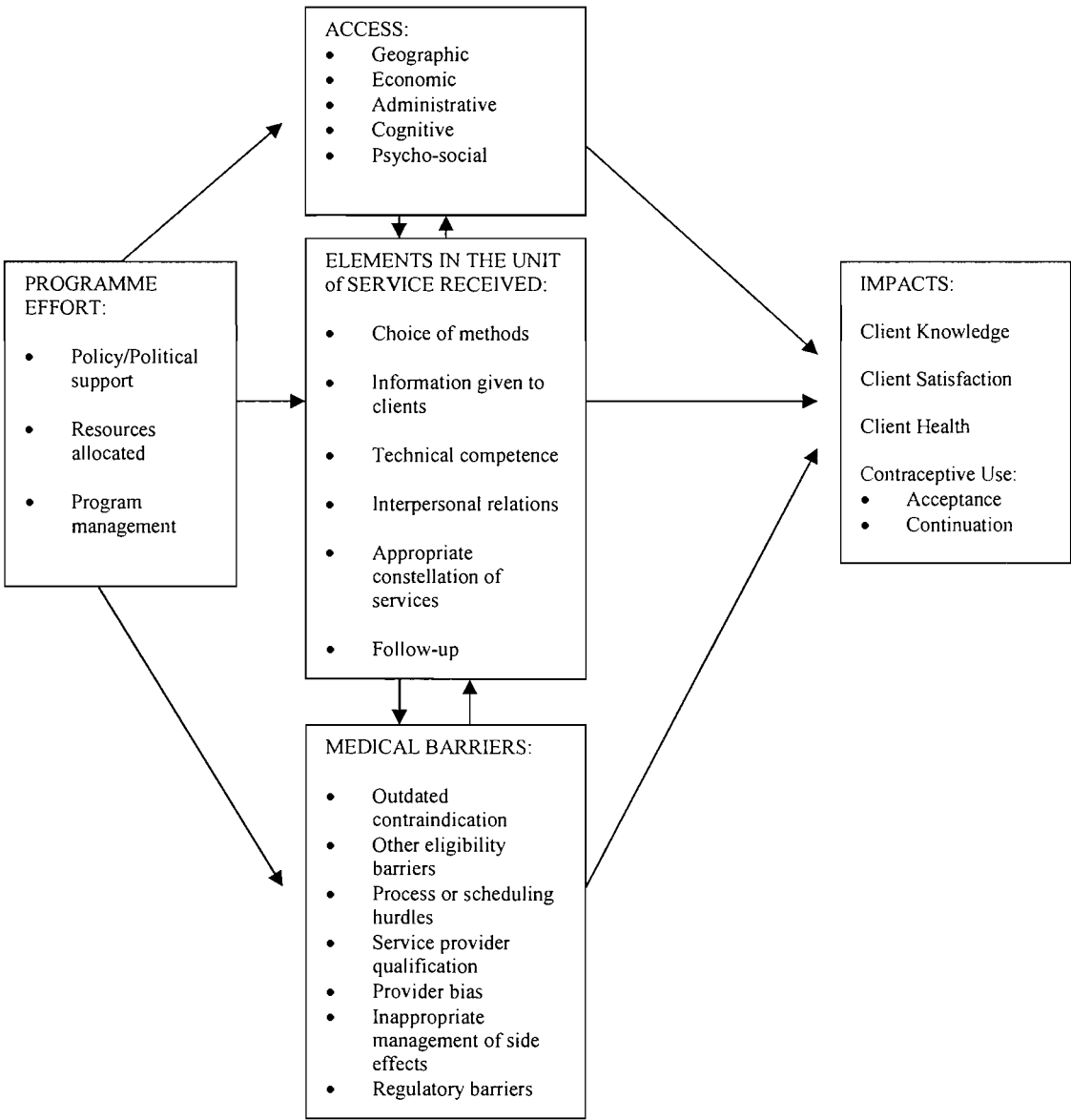
1.1 Defining quality of care

Defining and measuring quality of care is challenging due to its subjectivity and complexity. Extensive research has been done by Bruce and Jain who distinguish six elements of quality of care at the service unit (choice of methods, information

given to clients, technical competence of the providers, interpersonal relations, appropriate constellation of services and mechanisms to ensure follow-up) that impact the client’s knowledge, health, satisfaction and ultimately contraceptive use (Figure 4.1) (Bruce, 1990; Jain, 1989). Quality of care can be measured at the level of the client, the service unit and the policy level (Kumar et al., 1989).

Figure 4.1

Framework of the several elements of quality of care *



* Adapted from Bertrand et al. (1995), Bruce (1990) and Sheldon et al. (1992)

Elements of quality of care contain many subcategories and are closely linked to access to services which covers different dimensions (Bertrand et al., 1995). Access to services is crucial in order to attract potential FP clients; ‘once that individual moves “inside the door”, quality of care and medical barriers will greatly affect his or her decision to adopt a method and motivation to continue using contraception’ (Bertrand et al., 1995 p.65). Medical barriers are described as ‘practises that use a medical rationale but result in an impediment to or denial of contraceptive use that cannot be scientifically justified’ (Shelton et al., 1992 p.1334). There are several types of medical barriers (Figure 4.1): service providers’ application of outdated contraindications, eligibility barriers including prohibitions on the use of particular methods that may be related to women’s age and parity or their husband’s consent, process hurdles including unjustifiable physical examinations and tests that clients have to undergo before getting contraceptives prescribed, limitations in terms of training skills on the type of personnel who can deliver a FP method, provider bias as the practise of favouring some FP methods and discouraging others for medically unjustified reasons, inappropriate management of services when clients are told to discontinue for (minor) side effects, regulatory barriers such as slow contraceptive development or lack of promotion of new FP methods (Shelton et al., 1992). Medical barriers can be manifested at the national regulatory level, at the program policy level or at the individual provider level (Bertrand et al., 1995).

Medical barriers can have a detrimental effect on the quality of FP services delivery or act as barriers for clients seeking to access FP services

(Bertrand et al., 1995; Askew et al., 1994; Speizer et al., 2000). Medical barriers have previously been reported among FP service providers at governmental health centres (GHCs) and posts in Guatemala (Reproductive Health Unit of the Ministry of Public Health, 1992). The study found that despite the adoption of the Safe Motherhood Initiative of 1992, which stated that all women of reproductive age should have access to FP, the majority of service providers were reluctant to prescribe contraception to nulli-parous women, demanded the consent of the spouse, used unwarranted contraindications and were biased against methods such as the pill and the intra-uterine device (IUD). The study revealed that many providers were ill informed about FP methods and were responsible for the spread of incorrect information among clients. A lack of knowledge and training on risks and benefits of contraception, use of outdated contraindications and incorrect norms and regulations combined with lack of governmental support and socio-economic factors were brought forward as the main causes of medical barriers. This study concluded however, that ‘very few providers explicitly indicated a bias against caring for a specific ethnic group, yet, most acknowledged the obstacles, structural and cultural, in reaching Mayan groups’ (Reproductive Health Unit of the Ministry of Public Health, 1992 p.34).

1.2 Defining the case study

The Ch’orti area with the *municipio* of Jocotán at its centre is particular in its ethnic composition because it is the only *municipio* with a high concentration of indigenous people in the east of the country (see Figure 1.1 in Chapter One). Ethnic divides in this *municipio*, as in the rest of Guatemala, are strongly

associated with geographical location. The Ch'orti are mostly living in the more remote rural *aldeas* (indigenous villages) and the *ladinos* are more likely to live in the town. As in the rest of Guatemala, there is a gradual loss of Mayan traditions (Pebley et al., 2005). People migrated from the *aldeas* and living in the town, are likely to have lost the habit of speaking Ch'orti at home and wearing the traditional dress but might still consider themselves indigenous or as a consequence of '*ladinisation*' of 'mixed' ethnicity (De Broe et al., 2005). The household survey of 2001 (Chapter Three) detected significant differences in use of FP and pregnancy related care between self-identified ethnic groups within Jocotán town; a previous survey in 1994 showed very low levels of contraceptive use in the surrounding *aldeas* (De Broe et al., 2005). The household survey showed that the GHC was the main FP provider for the generally poorer indigenous women of the Ch'orti area and that *ladino* women were more likely to use the other FP services such as private doctors, pharmacies, APROFAM⁴ providers or hospital services. The GHC offers FP services as part of maternal and child healthcare and is the only provider in Jocotán that offers these services for free. The survey generated 'why' questions as to which factors could explain the low levels of contraceptive use, despite availability of FP services, among the indigenous communities in the Ch'orti area (De Broe et al., 2005).

This case study will rely on multiple sources of data evidence and a variety of methods allowing 'converging lines of enquiry' and a holistic approach in order to explain barriers to FP in the 'real life' context of the Ch'orti area (Yin, 2003). Theory development and prior development of propositions are

⁴ Asociación Pro-Bienestar de la Familia

fundamental in a case study (Yin, 2003). The following sections elaborate on previous fieldwork experience in the Ch'orti area that has led to the use of the conceptual framework and research questions.

During the first phase of the case study in 2001, exploratory in-depth interviews with FP service providers were undertaken, alongside the household survey, designed to discover and understand issues related to FP service delivery from the service providers' perspective. A qualitative approach was chosen to allow themes and concepts to 'naturally' emerge from the data (Strauss and Gorbin, 1999). The data from these interviews reflected low expectations among service providers of the demand for FP among the indigenous population (De Broe et al., 2005). Previous research in the Ch'orti area showed the often dismissive attitude of *ladino* health care workers towards the indigenous population (Metz, 2001). Because of the gradual loss of indigenous characteristics such as language and dress, being or considering oneself indigenous is not identifiable for outsiders. However, people in Jocotán are usually aware of other people's place of origin, whether or not they are from an *aldea* or the town and with which families they are related.

These observations can be viewed in the light of ethnic divisions in Guatemala in general. The classification of ethnicity is often a subjective and undefined assessment of someone's geographical origin, social belonging and to some extent physical appearance (Colby and van de Berghe, 1961). Ethnic segregation and discrimination are inherent to the Guatemalan society and define socio-economic as well as political boundaries (Barry, 1992). *Ladinos* are more

likely to have a higher educational level compared to indigenous people and to staff the health facilities. This is the case in Jocotán where the majority of the staff at the GHC considered themselves *ladino* or of ‘mixed’ ethnic origin. Only one member out of 23 staff members spoke the local indigenous language Ch’orti. Since 2001, the government has made FP widely available at governmental health centres and posts and the most ‘motivated’ indigenous people have slowly started accessing and taking up FP services (Bertrand et al., 1999; Santiso-Galvez and Bertrand, 2004). This study was designed with a particular focus on provider bias and its impact on the quality of care at FP services as received by FP clients from the indigenous communities in the Ch’orti area (the outskirts of the town Jocotán and the *aldeas*). The high levels of contraceptive use among *ladinos* in Jocotán led to the assumption that *ladinos* were well served in terms of FP.

1.3 Conceptual framework

The six elements of quality of care from the Bruce-Jain framework and the different aspects of access and medical barriers were all used to embrace the exhaustive list of elements of quality of care that could arise as barriers to contraceptive use on the ‘supply’ side of FP service delivery (Bruce, 1990; Shelton et al., 1992; Bertrand et al., 1995). The different components of access, elements of quality of care and medical barriers are interrelated and overlap (Figure 4.1). Moreover, each of the components and elements covers a multitude of potential subcategories depending on the national or local context and can be evaluated at different (client, service or policy) levels. ‘Provider bias’ is one type

of medical barrier, and together with other aspects of quality of care received at the service unit and access to services, has an impact on clients' knowledge, satisfaction, health and contraceptive use. However, provider bias as a medical barrier can easily be seen as overlapping with the other medical barriers and elements of quality of care. So can the use of inappropriate eligibility criteria, choice of methods, outdated contraindications and the application of process hurdles be very dependent on the individual provider's attitude, convictions or personal interpretation of norms and regulations. This idea was suggested in previous studies where the eligibility barriers were not related to whether the provider had recently received training or not, or the programme imposing them, but to the individual provider imposing those barriers - sometimes in order to protect their own values and culture (Speizer et al., 2000; Twum-Baah and Stanback, 1995; Speizer et al., 2000). Secondly, the sources of medical barriers as described in earlier studies were to a great extent ascribed to the role of the provider in perpetuating misinformation and rumours, delivering FP according to personal beliefs, use of outdated norms and guidelines due to a lack of training and supervision and low motivation among staff (Reproductive Health Unit of the Ministry of Public Health, 1992; Miller et al., 1991). Thirdly, in the Guatemalan context where ethnic divides and discrimination are inherent to social and professional contexts, the role of the provider is crucial. Access to high quality health care is therefore not only determined by socio-economic status but can be biased by one's ethnic background through medical staff's attitude (Chaturvedi, 2001). The aim of this study is to investigate the role of the service provider and to attempt to define the concept of 'provider bias'. The definition of provider bias was broadened here to include the provider's personal

preferences, convictions and interpretations as well as the socio-cultural attitude of the provider towards different ethnic groups. The framework in Figure 4.2 offers an alternative to the framework in Figure 4.1; provider bias is influenced by policy guidelines, program structure and resource allocation and has an impact on the different aspects of access, quality of care elements at the service unit and medical barriers, indirectly determining a clients' health, satisfaction and knowledge and contraceptive use.

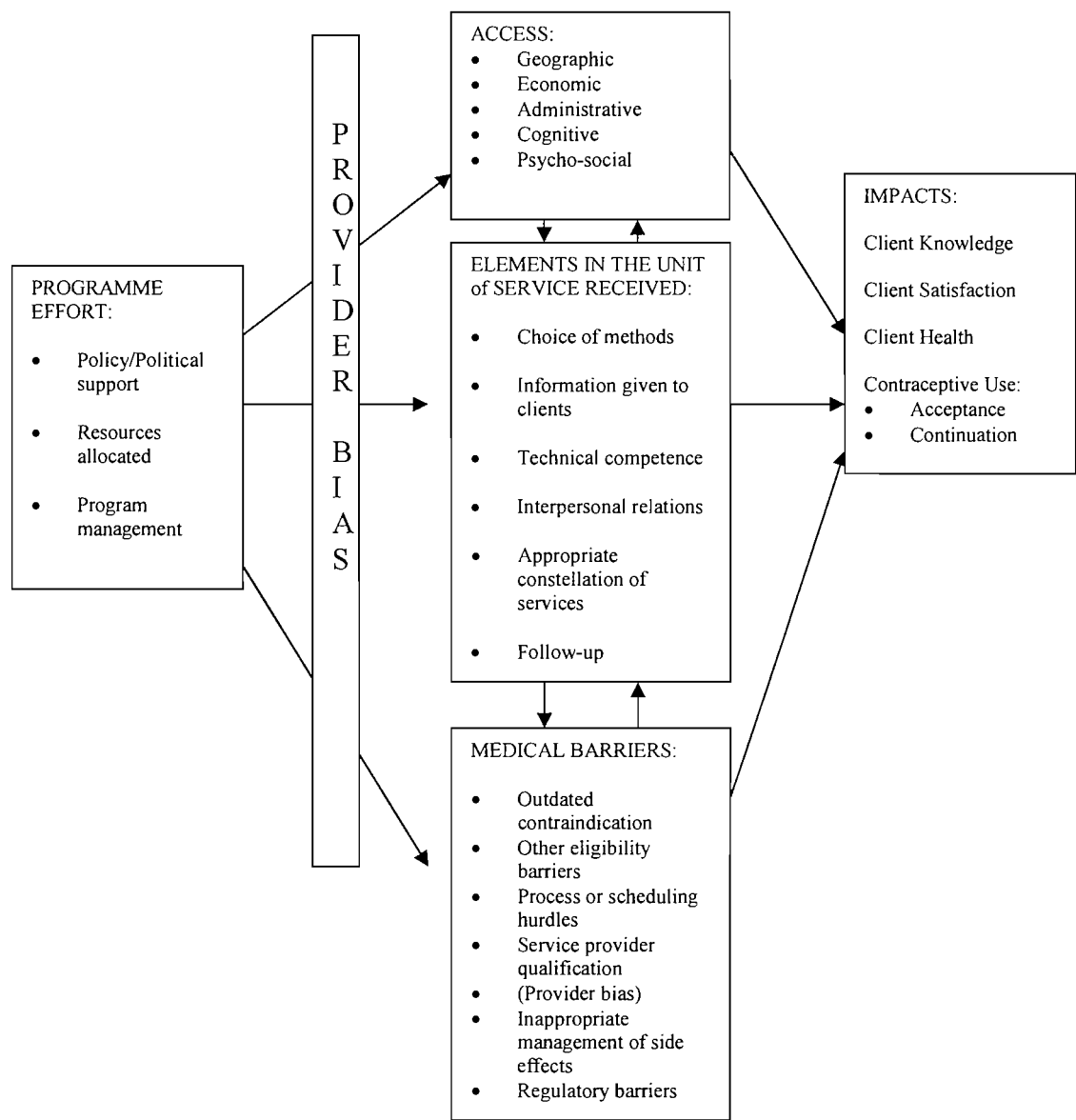
1.4 Research questions and objectives

This descriptive and exploratory case study aims to address the following research questions:

1. Which medical, access and quality-of-care barriers contribute to the low uptake of FP among the indigenous communities in (the outskirts of town) and around (the *aldeas*) Jocotán?
2. Does provider bias influence quality of care received by clients at FP services in Jocotán?

Figure 4.2

Framework of the several elements of quality of care*: An alternative proposition for the impact of provider bias



*Adapted from Bertrand et al. (1995), Bruce (1990) and Sheldon et al. (1992)

2. Data and methods

In this section, the design of the case study, fieldwork and unit of analysis, the research instruments, sample characteristics and analysis are elaborated. Each of the issues will be discussed according to the research question they were mainly designed to address (even if all instruments have contributed to addressing both research questions). Several of the instruments (the exit-interviews, interviews with service providers and inventories) were based on those designed by the Population Council as part of the Situation Analysis approach (Miller et al., 1997). Situation Analysis obtains clients' perceptions of quality and provides a comprehensive picture of FP services at delivery points. However, this current study was not designed to carry out a formal Situation Analysis. For confidentiality reasons, no permission was granted to observe client-provider interactions or to audit patient records. However, this study added a new approach by interviewing service providers in-depth.

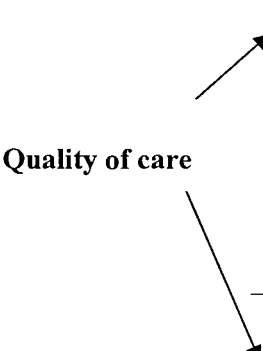
2.1 Case study design and units of analysis

This study has an embedded single case study design because it focuses on one area - FP services in the Ch'orti area - and it includes multiple units of analysis: organisations and individuals (staff at those services) (Yin, 2003). The focus of this study will be on services available and accessible to the indigenous communities in and around Jocotán. The research questions are addressed from the client, community, provider and researcher ('expert') perspective by using

several instruments; the unit of analysis includes both governmental and private FP services (Figure 4.3).

Figure 4.3

Units of analysis, research instruments and perspectives in the analysis

<i>Unit of analysis</i>	<i>Research instruments</i>	<i>Perspective</i>
Quality of care 	➤ Exit interviews ➤ In-depth interviews ➤ Direct observation	Client Provider Researcher ('expert')
	➤ Organisation ➤ Individual	
	➤ Inventory ➤ Focus groups discussions	Researcher ('expert') Community
	Private service ➤ Organisation ➤ Individual	Provider Researcher ('expert')
	➤ Focus group discussions	Community

2.2 Fieldwork design

Permission to undertake this study was asked and granted by the director of the GHC in January 2004; ethical approval of the study proposal was granted by the Opportunities and Choices Programme at the University of Southampton. Upon arrival in May 2004, a meeting was held between the director and the author to explain the general purpose of the study. It was agreed that the study results were to be made available to the staff at the GHC and used in order (if deemed necessary) to improve FP services in the Ch'orti area. Personnel at the GHC and private FP service providers were informed about the general purpose of the

study and assured of the anonymity and confidentiality of the study results. All received a letter in which the results of the 2001 household survey and the main objectives of the second study in 2004 were outlined (See Annex III.1).

Because the author was very familiar with the area from many previous visits and fieldwork in Jocotán, time was gained in establishing contacts, asking permission, selecting and training collaborators and interviewers and settling in. Therefore a timescale of four weeks was considered sufficient to collect the data. Several research interview-techniques were used and instruments designed accordingly in order to explore the two research questions:

- Exit interviews with a random sample of patients who came for general health care to the GHC (Annex III.2)
- Exit-interviews with FP clients at the GHC (Annex III.3)
- Interviews with governmental and private FP service providers in Jocotán (Annex III.4)
- Focus-group discussions with men and women from the outskirts of town, the districts Mitch and Cementerio-Nuevo (Annex III.5)
- Observations in the waiting room during opening hours of the GHC during the three week study period
- Inventory of the FP service delivery points in Jocotán (Annex III.6)

A total of 269 exit interviews with patients who came for general health care, 66 exit interviews with FP clients, 19 interviews with FP providers and four focus-group discussions with community members were conducted between 24

May and 18 June 2004⁵. Observation data were collected via a logbook in which aspects of quality of care were systematically recorded. An inventory was undertaken in each of the seven different FP service delivery points (the GHC, a private FP clinic, a private doctors' practise, three APROFAM providers and a pharmacy) to collect data on FP supply and service availability. In addition, maps and documentation of the local health structures, service records and survey data previously collected were used as documentary evidence.

2.3 Research instruments

A mixed-methods approach was used in order to capture the different dimensions and components of quality of care. Even though not all components of quality of care could be measured (such as providers' medical competence and interactions during the consultations), this study aimed at capturing as many as possible with the selected research instruments. An overview of which instruments were used in order to address the first research question is given in Table 4.1. The second research question aimed to identify 'provider bias' and explore the ways in which it emerged from the data. Therefore, data generated by all instruments, except the inventory, were extracted to address this research question.

⁵ Ingrid Gonzalez and Celia Villa Corta performed the exit-interviews at the GHC and Shenny Alvarez Vasquez selected candidates for the focus group discussions with the help of the sift questionnaire. Arleen Amador organised settings for the focus group discussions.

Table 4.1

Research instruments used addressing the first research question

	Research instruments				
	Focus group discussion	Interviews service providers	Exit-Interviews	Observation	Inventory
Dimensions of access					
Geographical	X	X	X		
Economic	X	X	X		
Administrative	X	X	X	X	X
Cognitive	X	X	X		
Psycho-social	X	X	X		
Dimensions of quality of care at the service unit					
Choice of methods	X	X	X	X	X
Information to clients	X	X	X	X	
Technical competence	X	X			
Interpersonal relations	X	X	X	X	
Appropriate constellation of services	X	X	X	X	X
Follow-up	X	X	X		X
Medical barriers					
Outdated contraindications		X	X		
Eligibility barriers		X	X		
Process hurdles	X	X	X		
Service providers qualifications				X	X
Provider bias	X	X	X	X	
Inappropriate management of side effects		X	X		
Regulatory barriers	X	X			

2.3.1 Exit interviews with patients and clients

Exit-interviews with patients who came for general health care were used in order to detect whether the quality of care as perceived (in terms of subjective indicators) or received (in terms of objective indicators) by different clients coming to the GHC was different between ethnic groups (*ladino*, 'mixed' and indigenous) or people from different geographical locations (people from the town as opposed to the *aldeas*). The quality of care as received by clients measured through exit-interviews is useful to identify weaknesses in the service delivery and the client's perspective 'is ultimately the most important determinant of contraceptive use' (Bertrand et al., 1995 p.66). The exit interview is 'one of the few tools that provide quantifiable data on clients' perceptions' and is a simple, cheap, easy to use and practical tool which does not require extensive training (Williams et al., 2000 p.68). However clients are not always able or knowledgeable enough to evaluate all aspects of quality of care and their perception are subjective. Clients tend to evaluate providers on the amount of quality time they spend with them and their attitude rather than their technical and clinical competence (Gay, 1988). Clients might also feel inhibited to express themselves when still near the health centre (Brown et al., 1995). This 'courtesy bias' was minimised by taking patients who consented to being interviewed away from the GHC. The motive behind interviewing general health care patients was three-fold. First, the interviews with general health care patients enabled the identification of quality of care issues that arose in general health care and could also affect FP clients. Second, interviewing those patients allowed a profile of the patients consulting the GHC to be developed. Third, general health care patients

come in large numbers whereas it was unclear how many FP clients were coming to the GHC, so a problem of small numbers might have arisen. Each interview with general health care patients lasted approximately twenty minutes.

Exit-interviews with FP clients were designed with the same purpose as the exit-interviews with general health care patients but specifically focussed on FP service delivery. The interviews lasted approximately 45 minutes. Due to the small number of FP clients and the few *ladinos* consulting the GHC for FP, data on received services were contrasted between the people from the town versus the people from the *aldeas* (rather than the three self-identified ethnic groups).

Selection of participants. Respondents for the exit-interviews were selected as follows. Attached to the letter to service providers was a referral sheet asking service providers to refer each FP client to the author (Annex III.1). The author interviewed all FP clients, new acceptors and re-supply clients, after introducing herself and the study and asking for their informed oral consent. Family planning clients were interviewed away from the GHC and after their visit to the GHC. Approximately one fifth of visiting FP clients was not interviewed. Three FP clients refused the interview because they were in a hurry to get home; service providers had not referred the other clients. General health care patients were selected by the two interviewers based outside the GHC during the opening hours (8.30 am to 5 pm, Monday to Friday) in the three week study-period. Patients were interviewed after their visit to the GHC, after a short introduction on the study and obtaining their oral informed consent. When one interviewer finished one interview, the next patient was approached. In this way,

approximately one third of the total number of visiting patients were randomly selected and interviewed. Approximately 15 per cent of the approached patients refused to participate; most appeared in a hurry to get home after having spent a long time at the GHC.

Question routes. The exit interviews collected information on clients' satisfaction, their recall of information received, length of the consultation, privacy, opportunity to raise questions and waiting time. The exit interviews with patients also asked whether they knew of, or had ever received information about FP from a provider at the GHC. The exit-interviews with FP clients asked more specific questions about FP such as information received and knowledge of the range of FP methods available, other FP supply sources, re-supply visits, administration and side effects of the prescribed method and whether the client's preference was respected. Issues of quality of care that were spontaneously raised by the patient or client and were not included in the questionnaire were noted down on the interview-sheet (see Annexes III.2 and III.3; the original exit-interviews can be accessed at Miller et al., 1997).

2.3.2 In-depth interviews with service providers

The face-to-face interviews with the FP service providers were split in two parts. The first part of the interview was structured and designed to assess which medical barriers were prevalent among staff at the FP service delivery points in Jicotán. The second part consisted of a semi-structured in-depth interview, which was designed to get an appreciation of the attitude among service

providers towards different groups of patients and clients coming to the GHC. This was done by asking general questions on the providers' perceptions of the reproductive health needs of the different communities (the different ethnic groups and people from the town versus people from the *aldeas*) in the Ch'orti area. In this way, service providers were equally key informants to identify areas for improvements in FP services in the Jocotán area. Because the indigenous Ch'orti are not always distinguishable with outward markers (language and dress) and service providers are not able to tell someone's personal identification of ethnicity (on which most of the results of this case study are based), service providers tended to refer to people according to their place of origin (people from the outskirts versus the rest of the town of Jocotán and *aldea* versus town people) when contrasting ethnic groups. Using in-depth interviews enabled service providers' attitudes and perceptions on different population groups to be obtained. The semi-structured format allowed flexibility in the way issues were raised and facilitated the exploration of perceptions or clarifications; probing allowed themes to be followed up. Providers were assured of confidentiality. The in-depth interviews were tape-recorded and additional notes were taken after each interview. The author conducted all of the interviews with service providers.

Selection of the participants. All the health care providers of the GHC who were involved in the provision of FP and available during the study period were interviewed, leading to 14 out of a total of 23 providers working at the GHC. The staff members who were unavailable for interview were the auxiliary nurses and one technical assistant whose main responsibility is vaccination coverage in the

aldeas. The staff members at the GHC and the private service delivery points differ in their qualifications, responsibilities and location of working place (Table 4.2). The staff at the GHC that attend patients in the consultations, are involved in prescribing FP methods and providing information to (potential) FP clients. The staff who do not see patients in the consultations are likely to attend patients in the waiting room, refer them to the hypodermic lab or the pharmacy to administer the injection or pill; they can make use of this contact to provide further FP information. An additional five in-depth interviews were conducted with the pharmacist who owned the largest pharmacy in Jocotán, one private doctor who was affiliated with APROFAM, two APROFAM providers who delivered services from home and the one provider who owned a private FP clinic. They were all involved in attending patients in (private) consultations (Table 4.2).

Question route. The structured part of the interview covered educational background and most recent FP training, services provided in the last six months, and open-ended questions on knowledge of side effects, contraindications and eligibility criteria for the provision of available or most used FP methods (injection, pills, condoms and sterilisation). All 19 providers were interviewed using the structured interview. The semi-structured part of the interview covered five FP topic areas related to the Ch'orti area: use of FP, access to FP information, FP service delivery and the service provider's opinion on it and reproductive health needs in the Ch'orti area. For each of the topic areas providers were encouraged to express their views for each of the different communities in (people from the town) and around (the *aldeas*) Jocotán. Sixteen

out of the 19 interviews with providers included the semi-structured in-depth question route; the three auxiliary nurses who were not interviewed in-depth were not involved in prescribing contraception (see Annex III.4 for question route).

Table 4.2

The qualifications and working place of the different service providers interviewed according to type of FP service, Jocotán 2004

	<i>Professional qualification</i>	<i>Responsibilities</i>		<i>Working place</i>
Governmental health centre		Attends consultation	Administers FP	
1.	Doctor	X	X	GHC
2.	Doctor	X	X	GHC
3.	Doctor	X	X	GHC/Aldeas
4.	Doctor	X	X	GHC/Aldeas
5.	Nurse	X	X	GHC
6.	Nurse*		X	GHC/Aldeas
7.	Nurse*		X	GHC/Aldeas
8.	Nurse*		X	GHC/Aldeas
9.	Nurse		X	GHC/Aldeas
10.	Nurse	X	X	GHC/Aldeas
11.	Nurse		X	GHC/Aldeas
12.	Nurse		X	GHC/Aldeas
13.	Technical assistant		X	GHC/Aldeas
14.	Technical assistant		X	GHC
APROFAM				
15.	Technical assistant	X	X	Jocotán
16.	Technical assistant	X	X	Jocotán
Private doctor				
17.	Doctor	X	X	Jocotán
Private clinic				
18.	Nurse	X	X	Jocotán
Pharmacy				
19.	Pharmacist	X	X	Jocotán

*Only interviewed using the structured section of the interview

2.3.3 Focus group discussions in the community

In order to explore the community's perceptions on the quality of care offered at the health care and FP services in Jocotán, focus groups were organised. This method offers an unstructured research environment with discussions emerging from a group dynamic while allowing probing and follow-up questions (Kitzinger, 1995). Focus-group discussions were organised separately for men and women from two districts on the outskirts of Jocotán to detect whether a different range of perceptions emerged from the two gender groups. The two districts Mitch and Cementerio-Nuevo were selected because the majority of the people in these relatively poor districts depend on the GHC for health care (De Broe et al., 2005). The population in these districts can be considered homogeneous in terms of socio-economic characteristics. In fact, many of them were living in the same *aldea* before moving to Jocotán or are acquainted with one another. In this sense, it was impossible to compose a group of strangers, usually recommended for focus group discussions, in order to create a 'permissive' environment for participants to express themselves free from social pressures from their peers. However, this fact has previously been shown not to pose a barrier to conducting successful focus groups (Kitzinger, 1994; Morgan and Krueger, 1993). The two female groups involved seven and ten participants between 20 and 41 years of age; the two male groups involved four and seven participants between 27 and 41 years of age. The focus group discussions were held in the cultural centre of Jocotán, which provided a private and neutral environment. The author performed the role of moderator; no neutral and trained person was available in Jocotán town to observe the focus groups. The

discussions, held in Spanish, were tape-recorded and notes were taken after each discussion. No skilled male moderator was available in Jocotán to lead the discussions in the male focus groups. However, the gender difference between the moderator and the group participants was not perceived as problematic because issues such as personal FP use could be avoided when discussing perceptions on health care and FP facilities.

At the start of each discussion, the moderator introduced herself, explained the broad objectives of the study, and rules to follow and stressed the confidentiality of the information that would be discussed. Following this, participants were asked to introduce themselves briefly by giving first name, age, occupation and number of children. Participants were thanked with a small monetary compensation, a little present and refreshments provided by the ‘housekeeper’. The focus-group discussions lasted on average ninety minutes. Because of limited resources in terms of staff and time, four groups were deemed sufficient to obtain a flavour of the reputation of the GHC and other health care services within the community.

Selection of participants. Focus group participants were selected through a technique of purposive or convenience sampling. It was argued that married (or in union) men and women in the age groups 20 to 49 with children are the most likely to have experiences with maternal and child health and FP services; participants with these characteristics were selected from the districts Mitch and Cementerio-Nuevo. These two districts are inhabited by between 30 and 60 households. Twelve households were randomly selected by the trained local

health guardian from the district Mitch and a sift questionnaire administered (Annex III.7). When no eligible candidate was found in the household or the selected candidate refused, the nearest household was selected. Selected participants were then asked for their informed consent and given the venue and time of the focus group discussion.

Discussion guide. The discussion guide was kept simple and flexible and included issues related to the community's use and perceptions of the quality of care at general health care and FP services, and attitudes towards FP in general. Because of the lack of time to organise a pilot focus group, new information and issues that were raised in the first focus group were then incorporated as new probes in the following focus groups as part of an iterative process (see Annex III.5 for discussion guide).

2.3.4 Direct observation in the waiting room

During the study period, the author was based in the waiting room between opening hours (8.30 am to 5pm Monday to Friday) of the GHC and observed the welcoming of the patients and FP clients, conditions of hygiene and comfort, average duration of the consultations, respect of privacy and those aspects of service delivery that were observable from the waiting room. A logbook was kept over the period in which all information was systematically recorded. There are several methodological issues that arise with observations. First, there is the issue of intrusiveness whilst collecting the data which might cause atypical good care by service providers and feelings of discomfort among patients; secondly,

there is the issue of subjectivity (Huntington et al., 1996). Therefore, notes were taken discretely whilst waiting for the FP clients to be referred; subjectivity was minimised by crosschecking the author's observations with the two interviewers during the daily briefing meetings.

2.4 Sample characteristics

Among the FP clients (N=66) there were eleven new acceptors, 48 re-supply clients with no problems and seven re-supply clients who had experienced side effects. All FP clients were women except for one man who came to collect condoms. One third of the FP clients also came for other health services. General health care patients (N=269) and FP clients differed in their socio-demographic and ethnic characteristics (Table 4.3).

Family planning clients were all, except one, married or in union, and had a higher educational level than the general health care patients. The patient group consisted of three ethnic groups whereas the majority of the FP clients considered themselves indigenous. The majority in both groups were Catholics (Table 4.3). The majority of the patients (60 per cent) exiting the GHC came from the *aldeas* whereas only one third of FP clients did so. Patients and FP clients were respectively 29 and 30 years of age on average. All patients and clients reported speaking Spanish; ten per cent of patients and one fifth of FP clients also spoke Ch'orti. Indigenous people and people from the *aldeas* had on average a lower educational level compared to the people who considered themselves 'mixed' or *ladino* or were living in the town.

Table 4.3

Demographic, socio-economic and cultural characteristics of the FP clients and general health care patients interviewed at the exit of the GHC, Jocotán 2004

Demographic characteristics	FP clients (N=66)	Patients (N=269)
Marital status :		
• In union	33	131
• Married	32	101
• Single	1	31
• Widowed or divorced	0	6
Education:		
• No education	0	104
• Primary education	49	140
• Secondary education and higher	17	25
Ethnicity:		
• Indigenous	50	96
• Mixed	11	139
• <i>Ladino</i>	5	34
Religion:		
• Catholic	41	186
• Evangelic	16	42
• None	9	39
• Jehovah	0	2

2.5 Analysis

The qualitative data of this case-study were analysed as follows. In-depth interviews and focus-group discussions were recorded, translated from Spanish to English and transcribed verbatim which yielded more than 160 pages of narrative data. The software used for the analysis was ATLAS-TI™. The first step of the thematic analysis was to read the data as a whole on a number of occasions in order to identify emergent themes, issues and patterns across individual providers and focus groups. The second stage involved the re-reading

of the transcripts focussing on issues of quality of care, access and medical barriers, which emerged from the data. This implied breaking down the narrative data into individual data sections, ranging from a few words to a few paragraphs and each containing one piece of information. Data sections were assigned to one or more of the pre-existing categories from the Bruce-Jain framework, aspects of access, medical barriers and/or new subcategories emerging from the data. The initial categories were modified and systematically expanded with each new source of narrative data. Subcategories such as ‘time-constraints’, ‘mismanagement’, ‘policy priorities’ and ‘under-use of resources’ were finally moved under one of the pre-existing categories. Emerging themes were contrasted between sub-groups of respondents (private and governmental service providers) and clients (people from the town versus from the *aldeas*). The approach of this analysis combines a deductive process using pre-set categories of the framework with an inductive process allowing new themes and specific issues of quality of care, medical barriers, access and provider bias to emerge from the narrative data. Other specific themes such as cultural barriers towards FP among clients expressed by clients or service providers were placed in corresponding but separate categories. The analysis of the dataset yielded 63 code categories each including between three and 125 data sections (See Annex III.9 for coding hierarchy).

This part of the analysis develops a descriptive framework identifying the barriers to accessing FP services for the different indigenous communities in (the outskirts of town) and around (the *aldeas*) Jocotán. Other instruments (exit-interviews and inventories) were used to validate the occurrence of emergent

themes. In the third stage of the analysis, the analytical strategy of ‘pattern matching’ was used (Yin, 2003). Even though this analytical strategy is mainly relevant for explanatory case studies, it is still relevant for descriptive case studies when ‘the predicted patterns of specific variables are defined prior to data collection’(Yin, 2003 p.116). Initially, two categories were created for provider bias: provider bias as a medical barrier and provider bias reflecting socio-cultural attitudes towards certain population groups. The proposition was that provider bias for medical reasons would affect all clients independently of ethnic groups whereas a biased attitude among providers towards indigenous clients would have a negative effect on quality of care as received and perceived by those clients. The rival assumption (service providers are not biased against the indigenous population) was also checked throughout the analysis by identifying quotes which reflected a positive or neutral attitude towards indigenous people or people from the *aldeas*. However, throughout the analysis it emerged that provider bias affected most of the other components of quality of care, medical barriers and even access and the data sections were coded correspondingly (See Annex III.9). Provider bias from the client’s perspective was assessed by comparing the data from exit-interviews at the GHC between different ethnic groups or populations from different geographical locations. Due to the small sample size of FP clients (N=66), provider bias from the clients’ perspective was only statistically detectable by using the sample of the general health care patients. Quotes of service providers are referred to with the number of the provider as designated in Tables 4.2 and 4.7. Mostly similar issues arose from the female and male focus groups so results are presented together. The results of the exit interviews were analysed through descriptive analysis in SPSS™.

2.6 Issues relating to reliability, validity and generalisability

Reliability usually refers to ‘replicability’ of the findings when similar methods were to be used in another study or similar conclusions were drawn by different researchers (inter-rater reliability) (Ritchie and Lewis, 2003). However, given the particularity of the context of this study area and the complexity of the concept of provider bias, one could argue that wanting to replicate the data would be naïve and unfeasible (Lincoln and Guba, 1985). Rather, a sense of ‘trustworthiness’ (Glaser and Strauss, 1967) is a key to appraise the ‘soundness’ of this study (Ritchie and Lewis, 2003). In order to increase the trustworthiness, the detailed procedures that have led to the results and conclusions of this study are exposed (Seale, 1999).

The sample selection was designed to represent the target population and aimed at avoiding bias. The sample of service providers included all private FP providers in Jocotán and the majority of staff members at the GHC involved with FP provision. None of the selected private and governmental service providers refused to participate in the study. Focus group participants were selected via purposive sampling using a sift questionnaire. General health care patients were randomly selected and nearly all FP clients were interviewed exiting the GHC so that those samples can equally be considered to represent the target population or client side of FP services in Jocotán. It is possible that the FP clients and patients who were ‘in a hurry to get home’ and refused to be interviewed were more likely to be from far distant poorer *aldeas* and to be in that sense ‘different’ from

the other clients. In order to assure different perspectives and FP issues to emerge from the data, the two interviewers were regularly encouraged to take their time when interviewing clients and noting down any relevant additional information given by the client on the side of the interview sheet.

The analysis of the qualitative part was undertaken systematically and comprehensively by using ATLAS-TI™ that provided a database of narrative data. This database included the interviews with service providers, the focus groups discussions, notes taken in the waiting room as well as statements made by service providers during the structured interviews. Typologies were reassessed in the final stages of the analysis by re-reading all the quotes and notes and re-categorising themes by hand in order to see whether the same categories arose as the ones identified in the first stage with ATLAS-TI™.

Using standardised interviews in the exit interviews and the first part of the interviews with service providers allowed consistency and comparability of the results across patients and providers. The in-depth interviews with service providers and the focus group discussions followed a semi-structured format in order to ensure that the same issues were discussed, increasing ‘reproducibility’. The interviews with general health care patients and FP clients were conducted outside the GHC, the focus groups discussions in a private and neutral setting. Most of the interviews with service providers took place at the GHC. Even though the providers were interviewed in a separate room, they might have felt inhibited to fully express themselves. The Spanish language was not a barrier during the interviews. The author visited Jocotán seven times between 1991 and

2004 and is familiar with the local vocabulary and social and colloquial meaning of terms and concepts in Spanish.

Validity is referred to as ‘correctness’, ‘credibility’ or ‘plausibility’ of research findings (Ritchie and Lewis, 2003; Glaser and Strauss, 1967). Validity has two dimensions: internal validity referring to ‘the extent to which an account accurately represents the social phenomena to which it refers’ (Hammersley, 1990) and external validity referring to the extent to which generated concepts and findings can be applied to other populations or context (Lincoln and Guba, 1985). Internal validation was verified by checking ‘accuracy of fit’ and testing derived concepts from one part of the data (one provider or focus group) on other narrative data (another provider or focus group) (Glaser and Strauss, 1967). Efforts were made to corroborate the observations from one research instrument (exit interviews, inventories, observations in the waiting room and in-depth interviews) with evidence from other research instruments (Yin, 2003). Where possible, some quantitative measure (counting) of statements made by participants in the focus groups and service providers are presented (Mason, 2002). Positive as well as negative aspects of quality of care addressed by service providers and in the focus group discussions are reported and quotes are selected from the range of interviews. Construct and external validity of this case study were further reinforced through data and method triangulation: qualitative and quantitative data were compared and different methods were used conjunctively at different stages of the fieldwork (Ritchie and Lewis, 2003). Finally, the issue of ‘courtesy bias’ among clients, providers’ bias (who might be unlikely to reveal the weaknesses in their own service delivery) and the researcher’s bias (who was

known to the staff members at the GHC and who, after spending many years in Jocotán, might be affected by being sympathetic towards the poor indigenous population) have to be taken into consideration.

In terms of generalisability, the distinctiveness of the *municipio* of Jocotán in terms of ethnic composition and socio-economic conditions compared to the surrounding *municipios*, should not be underestimated. The *municipio* of Jocotán is very poor and its predominant Ch'orti population are mainly subsistence farmers or landless labourers living on tiny plots of land and isolated due to bad road infrastructure. However, observations made about quality of care and provider bias at FP services in Jocotán could be relevant and inferred to other areas in Guatemala where ethnic groups are segregated and 'indigenusness' remains an important determinant of access and uptake of reproductive health care services.

3. Results

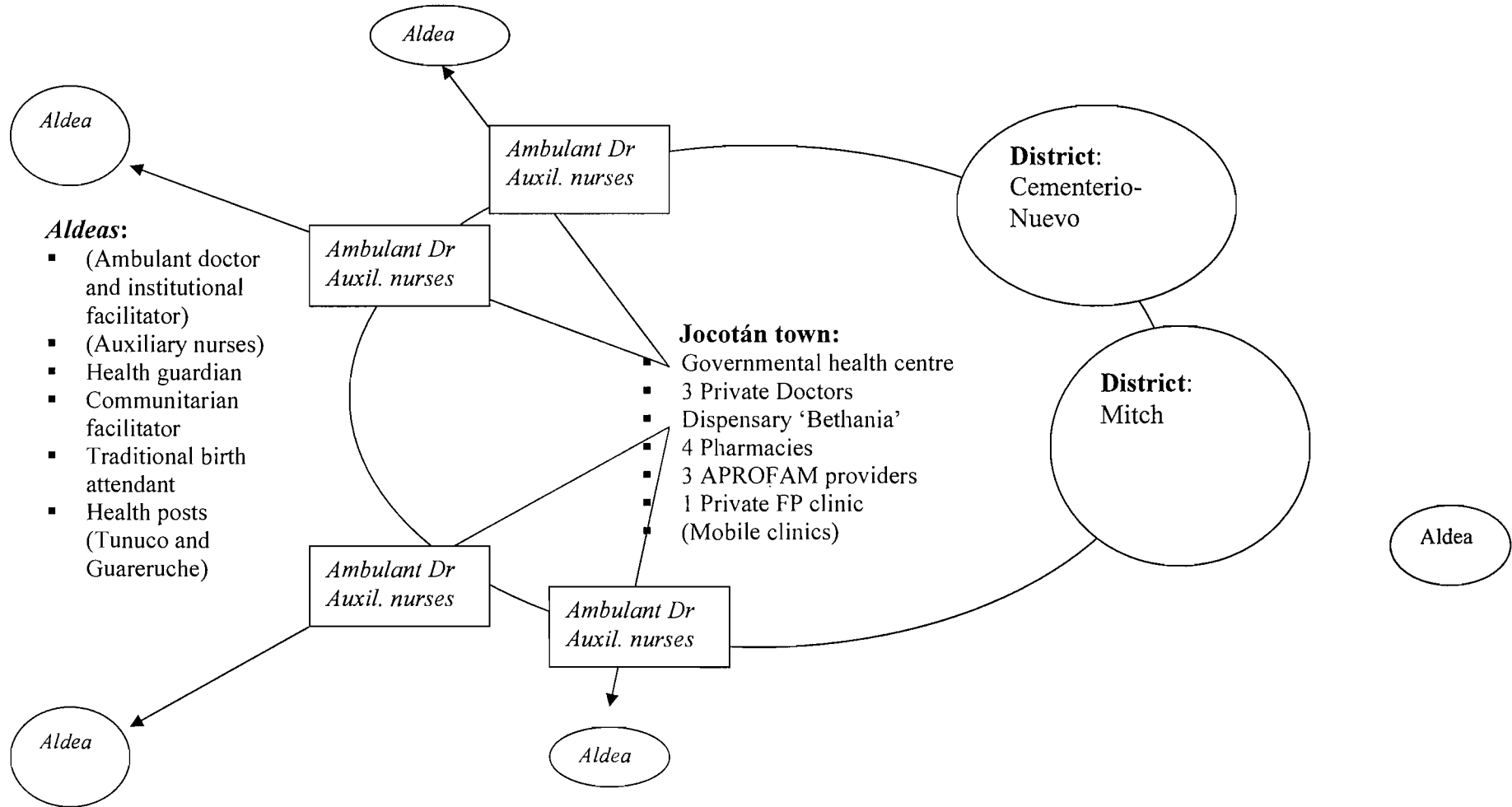
Family planning in Jocotán is available as part of maternal health care services at the GHC, the dispensary 'Bethania', three private doctors and four pharmacies; three APROFAM providers and one private clinic specialise in providing FP (Figure 4.4). The *ladinos* make most use of the private doctors, the pharmacies and hospital services in Chiquimula or Guatemala City, whereas the poorer indigenous people on the outskirts of the town almost entirely rely on the dispensary 'Bethania' or the GHC (Chapter Three). The indigenous people from the *aldeas* have access to health posts (in the *aldeas* Tunuco and Guareruche) and the ambulant doctor accompanied by his or her technical assistant (institutional facilitator) (Figure 4.4). Women from the *aldeas* also come to the town to access the free FP services at the GHC. Sterilisation campaigns are organised by APROFAM and mobile clinics visit Jocotán town to perform operations at reduced costs.

The results are presented by addressing the research questions: access, quality of care and medical barriers, which are faced by both indigenous communities. When discussing elements in the service unit received, the results mainly focus on the services offered at the GHC. The different subcategories of access, quality of care and medical barriers will be discussed following the order as outlined in the framework. In the first part, provider bias is discussed as a 'medical barrier'. The second part of the results focuses on provider bias, as it emerged from the data, from the providers' and clients' perspective.

Figure 4.4

Health services/providers offering family planning in the different communities in and around Jocotán

Aldea



3.1. Which medical, access and quality-of-care barriers contribute to the low uptake of FP among the indigenous communities in (the outskirts of town) and around (the *aldeas*) Jocotán?

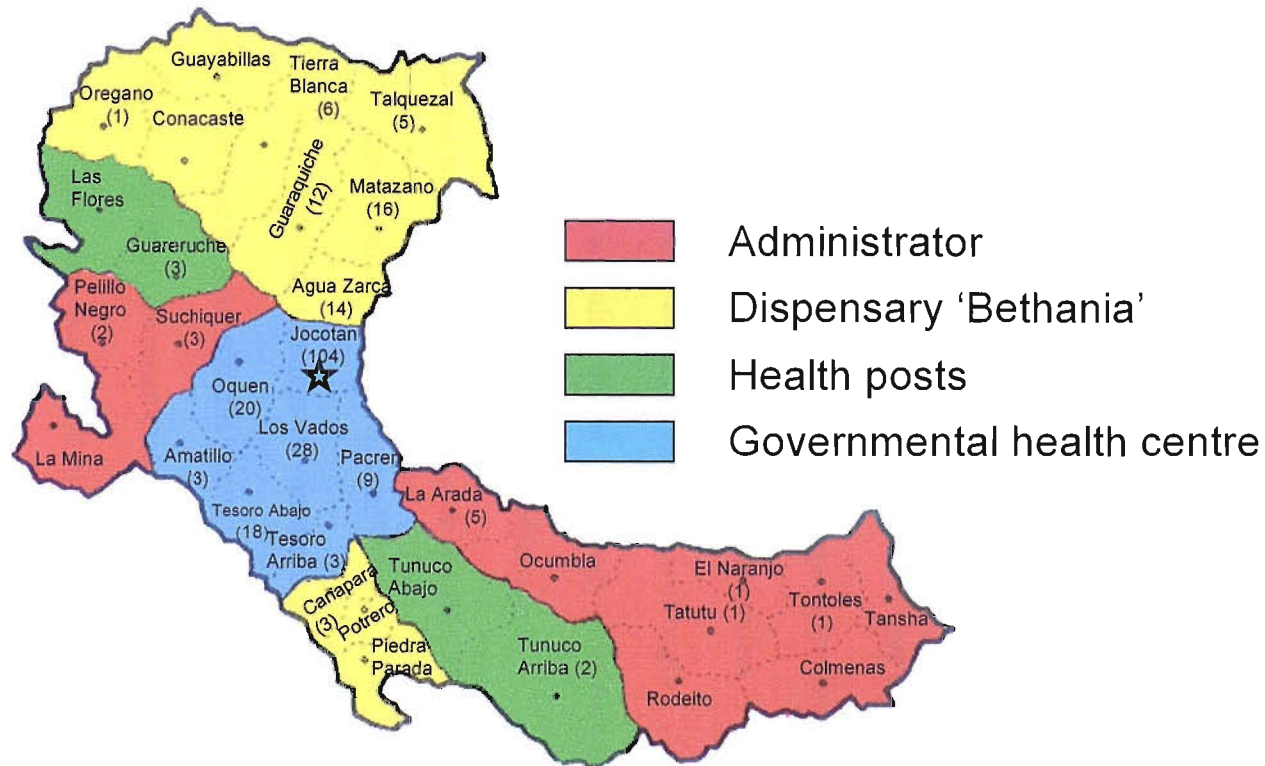
3.1.1 Access

3.1.1.1 Geographical access

Geographic access refers to ‘the extent to which FP service delivery and supply points are located so that a large proportion of the target population can reach them with an acceptable level of effort’ (Bertrand et al., 1995 p.65). The results of this study highlight that physical barriers to FP services include the distance and travel time to services, climatic conditions and the quality of the transport infrastructure. The results show that different aspects of physical access constitute a barrier to women seeking FP services in the town and for the provision of outreach services to the *aldeas*. Of key importance are the inter-relationships between these physical and administrative barriers described more fully in the following section. Geographic access to FP services was identified as one of the major issues for residents from the *aldeas*. Those residing on the outskirts of the town and in the *aldeas* near to Jocotán visit the town on a daily basis and have easier geographic access to health care. The exit-interviews revealed that patients from the *aldeas* reaching the GHC had walked between twenty minutes and four hours. The majority of patients came from *aldeas* near to Jocotán (Figure 4.5).

Figure 4.5

Map of the municipio of Jocotán (Jocotán town and its surrounding aldeas), the respective health areas with their covering health supplier and place of origin of the general health care patients interviewed at the exit of the GHC during the study period, Jocotán 2004 (absolute numbers)



The in-depth interviews with service providers also highlight the physical barriers to accessing FP services for the *aldea* residents. A typical comment from providers reflecting this issue is shown below.

‘Yes, like I said, for example they come only twice a year to the town and they should be coming every three months to take the method that allows the biggest gap! This is also one of the reasons why many women do not use the contraceptive methods’ (Doctor (3) at the GHC).

The issue of distance as a barrier to health service use has long been recognised by national health policy makers. Since the establishment of the Integral System of Health Care (SIAS) in 1997, the GHC, ‘Bethania’ and an independent administrator are responsible for organising outreach services whereby ambulant doctors travel to the *aldeas* to give medical consultations. Since the start of the Reproductive Health Programme (2001) they also take contraceptive methods (the injection Depo-Provera, pills and condoms). All 16 service providers interviewed stated that the use of FP among the *aldea* residents is strongly dependent on the outreach visits of the ambulant doctor. This study identified a range of issues in these outreach services which also hinder effective FP provision. The SIAS regulations state that an ambulant doctor should visit each *aldea* once a month. However, the ambulant doctors reported that these monthly visits are often postponed or prevented due to inclement weather conditions making the roads to the *aldeas* unusable. Also administrative responsibilities or strikes among the governmental personnel can mean that their scheduled monthly visit to the *aldeas* is postponed or cancelled. As a result of these interruptions the ambulant doctors do not achieve monthly visits to the *aldeas* or, when they do reach the *aldea*, patients do not show up because they were uninformed about the change in the visit date. The effect of these infrequent visits has a significant

impact on the ability of the *aldea* residents to effectively use FP methods. For example, if a woman from the *aldeas* is reliant on the ambulant doctor to provide her three monthly Depo-Provera injection and the visit is delayed, she faces significant difficulties in ensuring continuous contraceptive coverage. In this instance, women would need to travel the long distance to the town or the nearest health post to access FP services or abandon contraception. This issue is highlighted by a private provider (17) of FP in Jocotán:

‘But I have heard from patients that complained that they (the ambulant doctor and institutional facilitator) reach the aldea and they leave them a date...and that particular day they did not arrive. So the people are worried because they don’t get the follow-up injections to plan their family. So they have to seek the private services; at least the ones who can afford it. The one who can not pay it I don’t know what they do ...’

3.1.1.2 Costs

The costs of FP services include transportation, methods and opportunity (in terms of women’s time) costs. The data from the focus group discussions suggested that for the residents living on the outskirts of town the prices at the private services are affordable. Women and men in these communities also reported that they use the hospital at Chiquimula for pregnancy related care and to get access to sterilisation, and that they were not deterred by transport costs. Focus groups participants from the outskirts of town claimed to consult the generally perceived ‘better’ health care services (the dispensary ‘Bethania’ and the private doctor) in the case of a more ‘serious’ health problem *and* when they could rely on an income to afford them. Exit interviews with FP clients revealed that half of those who were aware of the private FP services in the town preferred to come to the GHC because FP methods were free.

Service providers say that FP is only a viable option for *aldea* residents when the methods are provided free of charge *and* do not involve transportation costs. One provider (10) highlighted that uncertainty about costs involved deters women from seeking FP services:

'No, that is maybe why more people are presenting themselves at the health post because there is this opportunity to get the injection or the pill for free and some still have doubts and they don't come near the health posts because they think one will charge them for the drug'.

Aldea women using Depo-Provera who are not able to receive their next injections at the appropriate time from the ambulant doctor are forced to find the cost of transportation to Jocotán town. Most *aldeas* are now accessible by car but, for some of their residents, the transport costs of the privately organised journeys by car are too high so that people prefer to walk. For some, the walking time will have taken too long to make the time slot for registration at the GHC in Jocotán (between 8 and 8.30 am). The following quote from one ambulant doctor (3) shows how lack of financial resources and administrative hurdles are closely linked to barriers for poorer women seeking to access FP services:

'But remember that the biggest communities are the ones that are the furthest. They have between 4000 and 7000 people in those aldeas and they live in extreme poverty; they don't have 40 quetzals to pay a trip to Jocotán. Because when you come here (at the GHC) after 8am in the morning they (staff) tell you that they won't attend anymore. So then you paid for nothing'

The exit interviews with FP clients and patients revealed that the majority (75 per cent) had walked to the GHC. Only patients from the *aldeas* had incurred transport costs and those who paid for transport spent on average 2.5 quetzals. If transport costs to Jocotán are seen as expensive, service providers state that transport costs to Chiquimula to access hospital facilities for sterilisation seem an

insurmountable obstacle for the people from the *aldeas*. Health campaigns through mobile clinics are the only option for women from the *aldeas* to get sterilised at reduced costs. However, according to APROFAM providers they tend to be organised in *aldeas* nearby Jocotán that are easily accessible by car.

3.1.1.3 Administrative access

Administrative access refers to the ‘extent to which unnecessary rules and regulations that inhibit contraceptive choice and use are eliminated’ (Bertrand et al., 1995 p.65). The GHC offers FP services Monday to Friday and at any time during opening hours (8am to 5pm). Ninety per cent of patients and clients reported that the opening hours of the GHC were convenient. However, the data from the focus group discussions and exit-interviews highlighted that the registration and admission system at the GHC was a major administrative barrier to accessing FP services. Patients and FP clients are expected to register for an appointment before the start of the consultation at 9am. Registration starts at 7am and ends between 8am and 9am, whenever the registration sheet is full. When patients arrive too late, they are asked to come back in the afternoon or the next day or, depending on the service providers’ judgement, are told to wait to be seen last. For people from the *aldeas* these restrictions pose major access barriers because privately organised cars to the *aldeas* leave Jocotán town at 1pm, as this man in the FG from Cementerio-Nuevo highlighted:

‘A lot of people come from the aldeas...To me it does not matter so much because I live in the town but for the people who live in the aldeas, this is very hard...they need to walk and so on, they might not catch the cars...’.

The two researchers undertaking the exit-interviews reported daily that mothers with children were returning home without having been seen by medical staff out of fear of catching the rain if leaving the GHC too late. One third of FP clients reported that they had missed the registration time before and were asked to return another time.

Once registered, patients and new FP clients wait to be called by the doctor or nurse to be seen in the consultation. Re-supply FP clients queue in front of the pharmacy to get their FP method; Depo-Provera users are subsequently asked to wait and queue in front of the hypodermic lab to get injected. Both men and women in the focus groups discussions felt there was a need for a fairer and more transparent registration and attendance system:

'You can feel that they do not ...introduce an order for example, that each one of us has a number and that we go number by number, there you could see that you make progress but sometimes they attend and you stay where you are for hours...how does this work?' (Man in Cementerio-Nuevo FG).

The observations in the waiting room also revealed that opening hours did not always correspond with working hours: the attending of patients sometimes started as late as 9.30am (instead of 8.30am) in the morning and 2.30pm (instead of 1.30pm) in the afternoon. On at least five mornings there was insufficient staff (only one doctor or nurse) to attend the large number of waiting patients.

3.1.1.4 Cognitive access

Cognitive access refers to the extent to which potential patients are aware of the services available to them and the location of those services (Bertrand et al.,

1995 p.65). The exit interviews at the GHC show that 60 per cent of patients did not identify FP when asked, with an open-ended question, which services are offered at the GHC. Among the FP clients, 64 per cent reported that they did not know any other FP delivery service point other than the GHC.

All FP service providers, private and governmental, claimed they mainly gave information about FP when patients come and ask for it and agreed that FP is insufficiently promoted. Service providers who work in the *aldeas* said they spend their time on other more urgent maternal and infant health care issues such as malnutrition, diarrhoea and vaccinations against whooping cough, polio and rabies. Several providers report that the men are the least (likely to be) informed because opportunities to ask information about FP -for example the visit from the ambulant doctor to the *aldea*- coincides with their working hours. This one issue came up only in the male focus groups where men expressed the desire to know more about FP. One man claimed the fact that they miss out on FP information activities is detrimental to the communication between the couple:

R 1: This is how the dialogue between the wife and the man could be introduced so that these things (unplanned pregnancies) can be avoided...but introduce the men and invite other people too so that they would hear it...R 2: Because we don't know anything...only the woman gets the information...this should not be like that...'. (Man from the district Mitch)

Service providers recognise that the first problem among people in the *aldeas* is the lack of information. The exit interviews confirmed the need for FP promotion in the *aldeas*; only 41 per cent of the patients from the *aldeas* could mention a FP method compared to 80 per cent of the patients from the town.

Providers who work in the far distant *aldeas* say there is hardly any contact with outsiders in those communities and, when there is, it is often through the Church:

'Yes, in some aldeas they only come to the town once or twice a year; their only contact is through the 'oratorio' and this is where the Holy Mass is held and (religious) talks and meetings and so this is the only thing they hear...so with them it is impossible to give them a (FP) method...' (Doctor (1) at the GHC).

In the *aldeas*, the community-based health workers (health guardians and *comadronas*) are responsible for the promotion of FP services. Health guardians are trained by the institutional facilitator⁶ and the *comadronas* by the ambulant doctor. However, six out of 15 service providers mentioned the community-based health workers are unlikely to spread FP information:

'Here in the Jocotán area, it is through the health guardians (that info is spread) because there is a health guardian in each sector and...he (the technical assistant) gives talks to all the health guardians about FP and they have to share this information with their sector...some of them do it and others don't ...' (Provider (14) at the GHC).

One ambulant doctor and one nurse also reported that midwives are unlikely to distribute information on FP because they are usually the older more traditional women in the communities who culturally object to it. According to service providers, the new regulations of the Reproductive Health Programme say that the medical personnel who go out to the *aldeas* should use the opportunity of their visit to promote FP. However, those service providers give time constraints for failing to comply with these regulations and say that people in the *aldeas* get their information through word-of-mouth:

'...what happens is that there is a woman who comes here (at the GHC) because someone has told her...it goes mostly through word of mouth

⁶ One health guardian has 1 sector (20 families) under his responsibility and reports to the communitarian facilitator who reports to the institutional facilitator. There are 40 health guardians; 6 communitarian facilitators and 1 institutional facilitator in the health area covered by the GHC.

...more than through a promotion ...the ambulant doctor has to give between 70-80 up to 100 consultations (in one day); at the end of the consultations he is supposed to give training to the midwives about clean delivery... so to have still time to talk to the women about the FP methods maybe that is not feasible' (doctor (1) at the GHC).

3.1.1.5 Psychosocial access

Psychosocial access is the extent to which patients are able to overcome psychological or social barriers to FP services (Bertrand et al., 1995). For several reproductive health care services, such as sterilisation, clinical deliveries and abortion complications, patients are referred to the hospital at Chiquimula. All service providers reported a very strong psychosocial barrier towards the hospital among the indigenous communities. Indeed, several women and men in the focus groups expressed fear towards getting an operation (sterilisation) in the hospital, like this woman from the district Cementerio-Nuevo:

'But a lot of women are scared of the operation because they say that the operation, after the operation there are other diseases that enter you and they going into your womb and the womb will die and rot away until she dies...'

Access remains a great barrier to FP services in the Ch'orti area. In particular, the people from the *aldeas* face geographical barriers and are highly dependent on visiting medical personnel. When using FP involves costs in terms of methods or transport, it becomes inaccessible for poor people in the *aldeas* and on the outskirts of town. Lack of information on availability of FP methods and fear of medical institutions are additional barriers, more likely among the predominantly illiterate people in the *aldeas*. Once these people are motivated enough to overcome those barriers, the rigid registration, unfair attendance

system and long waiting times at the GHC further complicate easy access and uptake of FP.

The following section concentrates on the six elements of quality of care received at the level of the service unit set out in the Bruce-Jain framework (Figure 4.1). The data used for this section come from the exit interviews with patients and FP clients, inventories of the different FP service delivery points, in-depth interviews with service providers and the focus group discussions with men and women from the outskirts of town.

3.1.2 Elements in the unit of services received

3.1.2.1 Choice of methods

Choice of FP methods does not mean that all methods should be provided but that programs are designed in such a way that all potential users within the geographic coverage area have equal access to a variety of methods (Bruce, 1990 p.65). In Jocotán town two types of pills, the monthly and three monthly injections, condoms and advice on natural FP methods are readily available at the private service delivery points. APROFAM providers and the private FP clinic additionally sell vaginal tablets. For the IUD, female sterilisation and vasectomy, FP clients are referred to hospitals in Chiquimula or Zacapa. Generally, service providers did not identify a lack of FP options as a barrier to uptake of contraceptive use for the people living in Jocotán town. However, because the GHC provides only one type of pill (Lo-Femenal™) and only one type of

injection (Depo-ProveraTM), pill and injection users are left with very few options if experiencing side effects unless they buy them at private services. APROFAM providers also reported that their pill options would soon be reduced from two types to one because of funding cuts. Women and men in the focus groups felt there was a need for organising another female sterilisation campaign with mobile clinics coming to Jocotán - the last one had been organised three years before. Women and men in the focus groups were aware that female sterilisation and the IUD were offered at the hospitals in Chiquimula and Zacapa but there was uncertainty about the costs and eligibility criteria of these interventions. The IUD seemed unpopular among community members and access to this method was perceived as more expensive and problematic because of the need to travel and the required specialist-intervention.

The choice of FP methods was reflected among the method mix reported by FP clients; the vast majority were first-time Depo-Provera users. Among the clients who reported to have used FP before, five reported having used the pill, two the injection and two natural FP methods. One man reported having used the condom before. Only one service provider claimed to have ever prescribed the IUD before and none had ever referred for male sterilisation or come across a demand for NORPLANT. Abortion is illegal in Guatemala. Three providers reported receiving regular demands for a FP method 'to bring the menstruation back' because of the misconception that some FP methods can be abortive.

In the *aldeas* the pill, injections and condoms should be taken by the ambulant doctors and are available at the health posts. However, one ambulant doctor (4) claimed:

‘There is no point taking condoms to the aldeas because I am there in the morning (when the men are working) so only women come to the consultations’.

It was unclear what this doctor would provide to women who desired to use condoms with their partners or, in the more likely case of, a woman presenting herself with a sexually transmitted disease. One technical assistant (13) says that the methods offered in the *aldeas* are often limited to the Depo-Provera injection:

‘The injection has given us this opportunity to take FP to the families (in the aldeas) but the other methods we have left behind because of the injection...sometimes we have not even offered them because of the facility the injection offers...we are forced to do it this way...’.

Another ambulant doctor (3) claimed never to prescribe the pill because of its high risk of cancer so that one can conclude that, in the *aldeas* covered by the GHC and the administrator (see map Figure 4.5), Depo-Provera is the only FP option.

3.1.2.2 Information given to clients

Information to clients covers two dimensions. First, clients have to be able to appreciate the variety of methods that are available; secondly, the users should be able to employ the methods effectively whilst being aware of their positive and negative side-effects (Bruce, 1990). Ideally, client-provider interactions should be observed in order to measure this aspect of quality of care. Since this kind of data was not available, giving out information was discussed with service

providers and received information measured through the exit interviews with patients and FP clients.

Giving out information. Service providers at general health care services claim they mainly give information when clients ask for it. Private FP providers say their clients come with the specific purpose to use FP but very few had been involved in outreach FP promotion activities. One private doctor (17) reported attempting to give spontaneous FP advice to couples of certain age groups:

'I also do it when the couple is young and I consider they have little access to FP information so I risk giving them some advice, which intentions they have or that they talk about it ...also when a couple is older, I give them advice not to have any more children for the risks involved...when they are older, I always give advice...'

Most governmental providers give time-constraints as a reason for not using the opportunity of the contact with a patient to promote FP. At the GHC providers say they spontaneously give FP information with certain patients:

'Look, when we see a pregnant woman we ask her how many children she has had and we start to talk to her about FP methods. We do not explain them the methods very specifically, we just tell them that this and that exists...or when we see women with malnourished children...we need to tell them that their child is malnourished...The more children she has, the more children will be under those circumstances so we start to explain her (about FP)...' (Nurse (5) at the GHC).

The exit-interviews revealed that a fairly large proportion of patients and clients would have liked more information. Fourteen per cent of FP clients and 16 per cent of patients reported not having received the information they desired; respectively, 11 and 14 per cent of those who had questions said that they had not had the chance to raise them.

Service providers reported that, because FP information in the *aldeas* is mainly spread through word-of-mouth, it contributes to further disinformation.

Consequently, they faced many barriers of fear, health concerns and misconceptions about contraception. In order to convince clients, service providers at the GHC reported stressing the economic burden of ‘too many children’ and the detrimental health effects of multiple and closely-spaced pregnancies:

‘I ask them if they are interested in planning and spacing their pregnancies for not having their children so quickly one after the other and I explain them which changes their bodies suffer... I explain them that their body will get ruined by having their children so closely spaced...that they will fall apart (laughs)’ (Doctor (4) at the GHC).

The exit-interviews with the general health care patients indicated there is a potential FP clientele for the GHC: 60 per cent of patients reported not wanting any more children whereas 76 per cent reported never having visited the GHC for FP purposes.

Content of information. Service providers at the GHC reported that FP clients are generally informed about the different FP methods, how to administer the prescribed method and its side effects during the first consultation. Exit interviews with FP clients reveal that the majority (95 per cent) knew how to administer their prescribed method but only a minority of pill and injection users were aware of its side effects or those that require medical assistance (Table 4.4). Out of eight FP clients wishing to discontinue their contraceptive method, six reported that they experienced side effects of which they had not been forewarned.

Table 4.4

Information given about FP the day of the visit and awareness of availability and side effects of FP among clients exiting the GHC, Jocotán 2004

Information given to clients	FP clients (N=66)	
	Aware of availability at/through GHC	Some info received day of visit
▪ Injection	64	63
▪ Pill	45	34
▪ Condom	11	7
▪ IUD	3	2
▪ Female sterilisation	2	8
▪ Advice on natural methods or breastfeeding	1	0
Users' awareness of side effects	PILL users (N=7)	DEPO users (N=56)
▪ Nausea	2	10
▪ Head ache	3	19
▪ (Irregular) loss of blood	0	22
▪ Weight gain	0	2
▪ Cancer	0	0
▪ Infertility	0	0
▪ Other	0	2
▪ Side effects ever mentioned by provider	3	30
▪ Emergency side effects ever mentioned by provider	1	12

The spread of information through word-of-mouth could be a major reason why service providers report that most FP clients ‘come decided’ to the GHC asking for the injection. The majority of the FP clients exiting the GHC were Depo-Provera users (56 out of 66). It is possible that, because clients ‘came decided’ and gave the impression of being informed, they are less likely to receive information. Half of FP clients reported not having received information about a contraceptive other than the one they were currently using on the day of

their visit. Among the new acceptors (N=11), only four reported that the provider had mentioned an alternative FP method; three clients were told it was possible to change if they were not happy with the prescribed method; none was told about another service delivery point to get a re-supply of contraception. Among the re-supply contraceptive users (N=55), the majority knew about the availability of the injection and the pill at the GHC and received some information about one of those two methods on the day of the visit (Table 4.4). Most FP clients (61 out of 66) were reminded when they had to come back for their re-supply visit. The vast majority of FP clients (53 out of 66) said they preferred the injection as a contraceptive method and were using it. However, when asked why they preferred it, one third said it was the only method they knew.

Other sources of information. Information, education and communication (IEC) material such as pamphlets, leaflets and posters are often important sources of information for FP clients. However, only three FP clients exiting the GHC reported having ever received any documentation about their FP method. At the time of the study, FP posters were hung up in the waiting room of the GHC. The service provider at the GHC who stored the logarithm chart of informed choice and explanatory FP cards provided by the Population Council said they were never used because of time constraints. Among the private providers, only one APROFAM provider had FP leaflets at the service point; none of the other private providers possessed any IEC material.

Socio-economic conditions will affect people's access to information. People who have electricity at home can potentially get FP information through the radio or television. Men and women in the focus groups reported that, occasionally, FP talks and informative home visits were organised by private or religious institutions. One particular ex-APROFAM provider was mentioned in all four focus groups as being very proactive in the promotion of natural FP through talks on the radio and during meetings in Jocotán. From the discussions in both male focus groups, it appeared that these individualised FP promotion initiatives potentially do more harm than good by reinforcing misconceptions and fears among potential FP clients:

'I have heard a lot about that before on the radio from a doctor who was called X and he explained the different FP methods...he came to Jocotán to give talks...he talked about what is the FP through the closing of the womb...isn't that very dangerous? Because there is the risk, they need to operate, ...I think it is with copper, so that same thing, if one does not pay attention it could inflame or it infects inside and that is where cancer starts...so he said that it was not recommendable and that one better uses the natural methods and not these types of FP... to some people the pills harm them...for that reason he said all these things, he has come here to Jocotán...he is religious, very catholic...' (Man in Mitch FG).

3.1.2.3 Technical competence

Even though this study is limited in the extent to which technical competence of the service providers can be assessed, a few of the issues related to providers' training are discussed.

Providers' training. All 19 service providers in Jocotán stated that they had received FP training either as part of their professional education (10 out of 19) and/or through a separate course in the previous six months (14 out of 19) and all

had been involved in the provision of FP methods over the past six months. Auxiliary nurses claimed that FP training was not part of their professional training. Table 4.5 presents the results derived from the structured interviews with service providers. Despite the FP training, providers seemed to differ in their FP recommendations when presented with specific requests. In the case of a client who was not menstruating and who requested the pill, the majority of service providers said they would ask the women to wait and come back until menses returned (Table 4.5). Some providers recommended a pregnancy test but added there was usually none available at the GHC. One provider based in the *aldeas* reported *asking* the women whether they thought they were pregnant or not. One doctor and one nurse at the GHC, both attending consultations, claimed to prescribe a hormonal method after checking the woman's history of sexual intercourse and menstruation, as recommended in the guidelines when pregnancy tests are absent. The policy guidelines of the Reproductive Health Programme state that women can get hormonal methods prescribed at any time during their menstrual cycle after ruling out pregnancy. In cases where a woman appears pregnant at a re-supply visit, she has to be reassured that the small amount of progesterone will not have harmed the unborn baby. The results show an example of misapplication of service guidelines when dealing with the problem of contraceptive discontinuation. Two FP clients were intercepted at the exit of the GHC who were administered Depo-Provera beyond the three months follow-up due date. The service provider had assured the women, who had expressed concern about a potential pregnancy, that the injection would not pose a risk to the unborn baby. In both cases, it was unclear whether providers had checked the women's history of sexual intercourse. Service providers were divided over what

to recommend a FP client in the event that she is not able to make the next re-supply visit for the injection. The majority seemed to prefer a clinical intervention in the case of symptoms of a sexually transmitted infection.

Providers' knowledge of methods and contraindications. Service providers have a limited knowledge of contraindications of the two FP methods they prescribe most, the pill and the injections (Table 4.5). Most providers recognise high blood pressure as a contraindication of the two hormonal methods. However, two nurses at the GHC said blood pressure was hardly ever taken and exit interviews revealed that only six out of 66 FP clients ever had had their blood pressure taken. After high blood pressure, the contraindication varicose veins for the pill was known by the largest number of service providers. This contraindication is medically unjustified and needlessly restricts access to FP. Governmental and private service providers did not differ in their knowledge. Two service providers mentioned the husband's objection and malnutrition as contraindications of FP use.

Several auxiliary nurses at the GHC expressed a wish to learn more about methods that are not regularly supplied at the GHC, as this nurse (12) explained:

'I before was working in the health sector...they have given me training about the FP methods but I had never seen a condom!!! ...until now I only know the injection, the condom and the pill...only those three I know ...to tell you that it is not very wide...'

Four auxiliary nurses at the GHC approached the author with queries about the FP method they were personally using and many expressed a wish to learn more about FP in general.

Table 4.5

Service providers' recommendations and knowledge of side effects and contraindications of FP methods, Jocotán 2004*

Providers' recommendations when patient requests pill but had not menstruated during the last week:	GHC N=13	Private N=6
▪ Pregnancy test	4	3
▪ Return when has menses	8	3
▪ Refer to specialist	1	1
▪ ASK whether pregnant	1	0
▪ Give the pill	1	0
▪ Investigate whether problem with the womb	1	0
▪ Does not know	0	1
Providers' recommendations when pill user shows symptoms of a STI:		
▪ Continue with pill only	0	1
▪ Continue with pill and condom	1	0
▪ Change pill for condom	4	0
▪ Stop using any method	0	1
▪ Give orientation on STD and refer to specialist	3	1
▪ To do smear test	0	1
▪ Check risk of transmission and treat the couple	5	1
▪ Does not know	0	1
Providers' recommendation when patient can not make follow-up visit for Depo-Provera		
▪ Come one week later	3	1
▪ Come two weeks later	0	1
▪ Come back earlier	2	2
▪ Go and see ambulant doctor or nearby service	2	0
▪ Use condoms after three months	1	0
▪ Up to one month later and check whether clients had sexual relations	1	0
▪ Wait until menses and then put injection	1	0
▪ Has to come the right time	1	0
▪ Up to three days later	1	0
▪ Does not know	0	1
Contraindications for pill users		
▪ Women above 35 years of age who smokes	0	1
▪ Heart problems	1	2
▪ High blood pressure	6	4
▪ Womb cancer	1	1
▪ Diabetic	1	2
▪ Pregnant	1	2
▪ Varicose veins	3	1
▪ Hepatitis	0	1
▪ Convulsing and malnourished women	1	0
▪ Husband does not agree	1	0
Contraindications for Depo-Provera users		
▪ Women above 35 years of age who smokes	0	0
▪ Heart problems	1	0
▪ High blood pressure	5	1
▪ Womb cancer	1	1
▪ Diabetic	1	2
▪ Pregnant	1	2
▪ Varicose veins	2	0
▪ Hepatitis	0	0
▪ Convulsing and malnourished women	1	0
▪ Irregular menses	0	1
▪ Not above 40 years of age	0	1

**More than one recommendation/contraindication can be given*

3.1.2.4 Interpersonal relations

Interpersonal relations reflect the personal dimensions of the service delivery (Bruce, 1990 p.74). Regarding this aspect of quality of care, issues related to welcoming and receiving of the patients at the GHC, dealing with client's reluctance to FP, issues of trust and patient's satisfaction emerged from the data.

Welcoming and receiving the patients. After registering, patients and FP clients are asked to wait and take a seat on one of the benches in the waiting room. The observations in the waiting room showed that staff members at the GHC regularly used the waiting room as a place for social encounters and patients could overhear personal conversations. Almost one quarter of patients exiting the GHC reported that the service provider who attended them did not greet them. Women and men in the focus groups complained repeatedly about the long wait and attitude of the providers:

'The problem is that when one goes there, sometimes one needs to be seen quite quickly because you get there with pain and so on but what the nurses and doctors do, it is as if they don't notice you, they pass by and they do not look at you so sometimes one feels really bad...better not to go and to go to the pharmacies...' (Man in Mitch FG).

In the waiting room, the author observed the pharmacy where the medicine was given out to patients who received a prescription. The pharmacy is a separate small room that opens on to the waiting room. The door to the pharmacy is blocked with a table, in view of the other patients in the waiting room. The auxiliary nurse seated at this table checks the prescription, collects the medicine in the pharmacy behind her and asks the patient to stamp their thumb with ink as proof of receipt of the drugs. Patients receive the drugs and

prescription to take home after a brief explanation about their administration. However, because almost all patients from the *aldeas* are illiterate and the pills are in unlabelled plastic bags, patients have to remember the correct administration. The lack of labelling also does not allow patients to check the correct administration with a literate person in their community.

Dealing with client's reluctance. All service providers mentioned they meet resistance from people from the *aldeas* to receiving explanations about FP because of religious reasons (several providers mentioned that the Catholic Church has become more tolerant towards FP) and the husbands objecting to their wives using FP. In order to convince women to use FP some service providers resort to arguing with the women about their religious motives:

'And I tell them: "What is the greatest sin? Planning your family or your children bearing hunger?" And then there, with this they say that then they want to use FP and they do' (Doctor (2) at the GHC).

All service providers report that 'machismo' and women's low social status are strong barriers to FP among women in the *aldeas*. Service providers claim the female clients show a preference for 'talking to their husband first'. The majority of FP clients stated in the exit-interview that the final decision of their contraceptive use is made together with their husband; five per cent said only the husband decided. Some service providers anticipate this preference when offering FP:

'...I tell the women: "so that you can space your pregnancies but talk first, now that you are pregnant, with your husband so that you can know what you want to do"...but if they don't want to, we also leave them the choice...' (Nurse (5) at the GHC).

Even though all service providers were in favour of the couples' joint decision, the vast majority claimed they would provide FP in case the women wanted to hide it from their husband. However, several service providers highlighted the sensitivity of this issue by stating that husbands could divorce their wives for using FP without their consent. On the rare occasions that men do come to the consultation, some providers resort to morality lectures rather than providing a needed discussion about FP:

'I tell them: 'God says that we are going to have the children (that He sends) but these children should not come to suffer' ...I tell them: 'So the earth is getting exhausted and not your wife? Your wife also gets exhausted! So start thinking: 'before you left the earth to rest and it gave a good harvest, now you don't do this anymore and it doesn't give good fruits, that is how it is with the woman...' (Nurse (11) at the GHC).

However, five providers demonstrated empathy and interpersonal skills by reporting having shared their own personal experiences with worried FP clients.

Trust. Trust is a fundamental aspect of interpersonal relations. Several providers highlighted different barriers to trust. Three male service providers reported that they were unlikely to be trusted by female FP clients because of their gender. This was confirmed in the exit interviews where 80 per cent of patients and FP clients exiting the GHC said they preferred a female provider for reproductive health care. Similarly, service providers who work in the *aldeas* report that women are unlikely to trust the (male) health guardian in their community with FP issues. The private doctor said that, because he grew up in Jocotán, very few patients came to see him about FP from within the town. However, employing female providers does not guarantee trust among the indigenous women. Two providers highlighted the fact that young female doctors from the capital

sometimes lack the trust and sensitivity to communicate with the indigenous women.

The SIAS health care system is designed in such a way that community-based health workers are responsible for referral of patients, dissemination of health information and keeping a record of the number of pregnant women in their community. Trust and adequate communication between the GHC and the community-based health workers are crucial for the well functioning of the health care system. The following example shows how the constellation of health care services decided at the policy level can affect the trust within the community. Two providers explained that since SIAS started to train *comadronas* and pay them an incentive, a high number of (younger) women in the *aldeas* with no previous record of birth attendance proclaimed to be a *comadrona*. They claimed the ‘real’ *comadrona* sometimes keeps hidden and does not attend the training. One auxiliary nurse at the GHC reported that some of those trained ‘*comadronas*’ started charging fees for attending a birth, an uncommon and unaccepted practise in the community, which created distrust towards the newly trained community-based health workers. Indeed, from the in-depth interviews with providers and the focus group discussions, it emerged that people on the outskirts of town did not give credit to the GHC-appointed health guardian. The focus groups with women from the outskirts of town additionally revealed that women who consulted a *comadrona* in the town, were asked by this *comadrona* not to make their services public knowledge. If these ‘real’ practising *comadronas* are not attending the training sessions, then their services are illegal which could be the reason for their request.

Patient and client satisfaction. The majority of patients (70 per cent) exiting the GHC thought that services at the GHC were in general good or very good and gave the fact that they received free medicine as a reason. The 30 per cent who considered the services to be average or bad gave lack of treatment and random supply of medicine as a reason for this. When asked specifically about the services they received that day, 17 per cent of patients and 10 per cent of FP clients reported being unsatisfied or partially satisfied (Table 4.6). However, the majority of patients said they would recommend the GHC's services to a friend; some spontaneously added that this was because the services were free. The exit interviews revealed that patients and FP clients wait on average for 90 minutes between arrival at the GHC and getting attended; half of them considered the waiting time too long. Men and women from the outskirts of town also complained repeatedly about the long waiting times at the GHC. The long waiting time contrasted with the very short observed consultation-time; on average, patients spent five minutes in a consultation. One third of patients and two thirds of FP clients considered the consultation time too short. Focus group participants perceived the lack of a physical examination during the medical consultation, which mostly consisted of an oral interview, as insufficient medical care:

'R1: They do not examine you...to look at your lungs, the throat, the eyes... R2: No, they only ask! Verbal!... R3: One has to SAY what one has... R3: they just send you away to go and buy the drugs, better go to the private doctor and get you properly checked!' (Women in Mitch FG).

Indeed, three quarters of patients leaving the GHC said they had not been examined. One nurse at the GHC claimed that some providers were reluctant to touch the 'smelly' patients from the *aldeas*. Patients suggested more availability

of medicine, better staff attendance and training personnel as ways to improve services at the GHC; among the patients who were unsatisfied or only partially satisfied, 20 per cent suggested less discrimination as a way to improve services (Table 4.6). The majority of FP clients also suggested less waiting time and better staff attendance in order to improve services at the GHC. From the focus group discussions, contradictory opinions emerged. Participants in three out of four focus groups claimed they would not consult the GHC if they could afford the ‘better’ private services; others, like some women from the district Mitch, reported positive experiences and improved attendance since more and new staff had been recruited.

3.1.2.5 Appropriate constellation of services

Family planning services at the GHC are integrated into the broader maternal and child health care services. Appropriate constellation of services reflects the extent to which services are provided adequately within the health care package and designed to meet the needs of the patients. The judgement about this element in the framework is ‘the least universal and most conditioned by context’ (Bruce, 1990 p.81). Related to this topic, issues of hygiene, privacy, response to immediate reproductive health needs and language barriers emerged from the data.

Table 4.6

Quality of care issues among patients and FP clients exiting the GHC, Jocotán 2004

	FP clients N=66	Patients N=269
Waiting time (%)		
▪ <1 hour	31	27
▪ between 1 and 2 hours	38	46
▪ >2 hours	31	27
Level of satisfaction (%)		
▪ Satisfied	90	83
▪ Unsatisfied	10	14
▪ Partially	0	3
Sufficient privacy during consultation (%)		
▪ Yes	60	71
▪ No	40	28
▪ Does not know	0	1
Provider's communication (%)		
▪ Easily understood	94	79
▪ Difficult to understand	4	4
▪ More or less	2	17
Reasons for (partial) dis-satisfaction (N)		
▪ Long wait	1	4
▪ Too late for registration	2	1
▪ Not received treatment/medicine	1	34
▪ Doubt of pregnancy remained	0	4
▪ Badly trained personnel	0	3
▪ No info about FP method	2	0
How can services be improved? (N)		
▪ More medicine available	6	45
▪ Better staff attendance	9	4
▪ Less waiting time	10	2
▪ Flexible registration time	2	2
▪ Better training of staff	0	9
▪ Less discrimination	0	10
▪ More privacy	0	2
▪ Pregnancy test available	0	2
▪ Need for maternity ward	1	0
▪ Free sterilisation	1	0
▪ FP services in the <i>aldeas</i>	2	0
▪ More info on the FP	3	0
▪ Does not know	32	193

Technical capacity and hygiene. Observations at the GHC detected that the centre has access to electricity, a refrigerator, a telephone, radio, an ambulance service to transport patients to the hospital of Chiquimula and vehicles to go to the *aldeas*. On four occasions the GHC was cut of running water. Patients'

consultation visits were not observed; general hygiene was only observed from the waiting room. Despite the fact that two cleaners are on duty every day of the week, several aspects of hygiene and meeting patients' need for comfort could be improved. All the benches in the waiting room were broken; the walls were black from ink, which was used by patients to clean their thumbs after receipt of their medicine. The curtains blocking the view into the hypodermic laboratory and the director's office were worn and torn as were the FP posters on the walls. The patient's toilet was without hand soap, toilet paper or a seat and only provided with a dirty towel. The toilet, also used as a storage space, was regularly without water. The public bin at the entrance of the health centre was continuously overflowing and street dogs wandered in and out of the waiting room.

Privacy. Most service providers at the GHC recognised the need to have a separate FP clinic in order to serve FP clients better and to spend more time providing the necessary information on the different FP methods in private. Service providers gave lack of time and space at the GHC as a barrier to providing FP services privately. However, observation in the waiting room revealed that several rooms were underused and several staff members were often unoccupied.

Patients receiving consultation at the GHC had little visual (consultation room doors were generally kept closed but other staff members were walking frequently in and out; the hypodermic lab was only separated by a curtain) and auditory privacy. Re-supply FP clients who came for the injection were asked to queue in front of the hypodermic laboratory; pill and condom users were

requested to collect their prescribed method at the pharmacy, both locations accessed via the waiting room. The constellation of the services made it impossible for FP clients to hide the purpose of their visit or for re-supply clients to raise contraceptive concerns in private. Several providers reported that condoms were usually collected ‘for a friend’. One FP client exiting the GHC claimed she did not know how to use the condom she was prescribed. Despite the fact that the pharmacy possessed a physical model of the male reproductive organ, the nurse was reluctant to make use of it because of the constellation of the pharmacy. Indeed, one quarter of patients and almost half of FP clients said they felt there was insufficient privacy at the GHC (Table 4.6).

Service providers reported that privacy is particularly limited in the *aldeas*. The providers who work in the *aldeas* reported that its residents objected to them using the *oratorio*, often the only brick building in the community, because of its religious purpose and the presence of the Holy Sanctuary. Therefore, the ambulant doctors had to resort to using the private house of the health guardian or the school corridor where patients could be examined on a bench or table. A comment from one provider (13) illustrates the condition under which ambulant doctors work:

‘Yes, so I try to convince the people to withdraw because each of you has the right to have privacy and that the doctor, and only her, can get to know your problem...but they do not understand!!! The people try to overhear and they are there and they wonder what the other one is doing there and when they hear something they laugh’.

In the two health posts in the *aldeas* there was no access to electricity, drinking water or toilet facilities. These conditions offered neither a hygienic nor private setting and could discourage women from seeking services in the communities where there is still social resistance towards FP.

Response to reproductive health needs and preferences. Service providers highlighted the need for a maternity ward in Jocotán town. At the GHC delivery care is occasionally offered in emergency. The majority of service providers also detected an urgent need to make pregnancy tests available at the GHC. The interviewers at the exit of the GHC intercepted several patients who had come with a suspicion of pregnancy and a desire to get tested. Several were turned down for consultation because no tests were available; other health centres in the area had referred some of them. Four patients were interviewed who had been seen by the doctor but were referred to APROFAM and the private doctors where pregnancy tests cost between 45 and 80 quetzals. These patients expressed their dissatisfaction because their doubt of pregnancy had remained (Table 4.6). However, from an in-depth interview with one provider at the GHC it emerged that pregnancy testing is selectively available. Patients from the town are asked to leave a urine sample with one of the providers in the laboratory who takes it home for testing with personal equipment. The clients are then told to collect and pay the 45 quetzals at the private home of this provider in the evening or the following day. Because this service is not accessible to poor patients who travel from far distant *aldeas*, this service is not advertised nor made publicly available.

Only two FP clients reported not having received a FP method on the day of their visit, one had experienced side effects with the injection and one new acceptor was denied the injection because she was not menstruating on the day of her visit. Only one out of 11 new acceptors would have preferred a different FP method than the one prescribed and preferred sterilisation; eight said not

knowing an alternative method. Most re-supply FP clients (N=55) were happy with their method; five clients reported they would have preferred a different FP method (four would have preferred to have been sterilised; one preferred NORPLANT) whereas 26 said they did not know any other FP options. The reproductive intentions and age composition of the FP clients suggested there was a potential demand, if offered as part of an informed choice, for a permanent FP method: 49 out of 66 FP clients reported not wanting any more children and half of these clients were 35 years of age or older.

Language barriers. Among FP service providers only one, who was part of the staff at the GHC, spoke Ch'orti. This member of staff was mainly working in the *aldeas* and was therefore rarely available for patients attending the GHC. For the people who live in the *aldeas* where Ch'orti is spoken the language potentially represents a major barrier to access FP services. Initially, most providers stated that people in the *aldeas* who speak Ch'orti also speak Spanish. However, when further discussing the issue, service providers appeared divided around language barriers. Some providers seemed to think that people from the *aldeas* were reluctant to accept advice on FP because *aldea* people are 'stubborn' and 'did not want to understand' about FP:

'Yes, it is a question of ...culture...sometimes it is because they do not want to do it...a lot of people answer you that they do not understand you because they speak Ch'orti but what really happens is that they are hiding themselves behind the Ch'orti...it is because they do not want it...but yes, they do understand...' (Private provider (18)).

Other providers recognised there was a strong language barrier mainly in the far distant *aldeas* and several reported that FP clients only understood how to use a FP method with 'simple words' or by 'lowering oneself to their level'. Other

providers ascribed the women's seeming inability to understand FP information to their low social status, as this private doctor (17) says:

'...sometimes I don't know whether it is the language because I feel sometimes, I was with them...and one feels as if they do understand...but that the women are not allowed to express themselves...and to say what they feel'

Providers' suspicions of language barriers among patients from the *aldeas* seemed to be confirmed by the results from the exit-interviews. The data showed that 26 per cent of patients from the *aldeas* compared to 14 per cent from the town reported having experienced difficulties understanding the service provider. Possibly due to the fact that none of the FP clients were illiterate, few reported having experienced problems with understanding service providers (Table 4.6).

3.1.2.6 Follow-up

The services at the GHC are clinic-based; therefore, its follow-up mechanisms are limited. The GHC keeps a record of each FP user through the individual registration card as given out by the Ministry of Health. One card is given to the client so that he or she knows the date of the re-supply visit. The other card is kept at the GHC in a cotton bag indicating the month of the year when a FP client is due for a re-supply visit. When a client has been seen, his or her card is moved to the next month for pill users and to the bag indicating three months later for Depo-Provera users. Discontinuing clients could be identified and counted from the cards staying in the cotton bags indicating the months prior to the study period. Despite the fact that most service providers claimed that clients generally turn up for their re-supply visit, there were 84, 65, 27 and 40 clients who did not show up in January, February, March and April 2004 respectively

among the total of 889 registered FP clients at the GHC. It was unclear how many among this total were still currently using contraception.

The day of the inventory there was a supply of 76 packages of pills, 150 Depo-Provera samples and 25 condoms at the pharmacy. Problems with stock-out of contraceptives at the GHC were a major barrier to continuation of contraception. During the study period, the provision of Depo-Provera ran out on two occasions. At the exit of the GHC, the interviewers intercepted several FP clients who were asked to come back another day. APROFAM providers reported that FP clients were coming to buy at their delivery point when the GHC ran out of methods. However, all APROFAM providers said their stock of methods covers their numbers of regular clients but would not be sufficient to provide many additional ones.

Service providers said it was impossible to follow-up *aldeas* patients. They reported many FP clients discontinued the injection when they experienced the unaccepted side-effect of menstrual disturbances. These clients did not come back to the GHC. The exit-interviews revealed that only one quarter of FP clients from the *aldeas* was aware of other supply points in the *aldeas* (the ambulant doctor and the health posts). Problems with stock-out at the GHC also affected the services and re-supply of contraception in the *aldeas*. At the time of the study, the administrator responsible for one health area of Jocotán *municipio* (see map figure 4.5) had withdrawn all funding and supply of contraception over the six months prior to the study period. Service providers in the *aldeas* of that health area reported having to face women exposed to the risk of an unplanned or

unwanted pregnancy; the ambulant doctor said the stock of the GHC could not be used because it was a different health area. One service provider working in the *aldeas* expressed the frustration of having tried to convince *aldea* people of using FP and subsequently having to let down clients due to supply problems. This, the provider claimed, contributed to the lack of trust in services offered by the GHC. Another provider pointed out that the lack of a ‘cold chain’ (fridge) complicates the storage and re-supply of the injection in the *aldeas* covered by the health posts (see map Figure 4.5).

3.1.3 Medical barriers

Medical barriers can be assessed at the national regulatory, programme policy level and the level of the individual service provider (Bertrand et al., 1995 p.66). From the interviews with service providers all three perspectives emerged; however, a particular focus will be on medical barriers at the level of the service provider.

3.1.3.1 Outdated contraindications and eligibility barriers

The data from this study detected that most service providers had little knowledge about contraindications. The results suggested that some outdated contraindications (for example varicose veins) were known among more service providers than some other medically warranted contraindications (for example pregnancy and heart problems).

Service providers not only differed between themselves but made contradictory statements when discussing eligibility criteria for the available FP methods (Table 4.7). The pharmacist said ‘just to sell’ contraceptive methods because ‘only married’ women from Jocotán town came to buy them and did not find any of the questions relevant to the service. Condoms were only collected by men and providers did not express any eligibility barriers in terms of age, parity or marriage. Most service providers said they did not impose any parity or marital restrictions for the use of the pill and injections; none reported the consent of the husband was needed for getting hormonal methods prescribed. Age eligibility barriers were common for the hormonal contraceptive methods and differed markedly between providers (Table 4.7). Age eligibility criteria were the least expressed among (auxiliary) nurses. Because most auxiliary nurses at the GHC are not attending the medical consultations, they do not have to prescribe contraception and apply eligibility criteria. The doctors and professional nurse at the GHC said they were aware of the new reproductive health regulations that say that FP should be available for anyone independent of age, ethnicity, marital or socio-economic status. However, several statements by service providers during the in-depth interviews revealed a personal preference, which contradicted what they said in the structured part:

‘OK, first I ask them if they are in union or married or I see if they are 15-16. And so if they say ‘no’ (not married) then I do not give them anything. Now, if there are women who come with lots of children, and they are 20-24 I ask them how old they are and how many children they have and then I ask them if they are interested in planning...’ (Doctor (4) at the GHC).

Three providers did not indicate a minimum parity requirement for hormonal methods in the structured part of the interview but during the in-depth

interview, expressed a personal preference for the women having at least one child before starting to use FP (Table 4.7). Those service providers argued that infertile clients might be unnecessarily using FP and later blame their fertility problems on the method or the provider. Despite not indicating the requirement of husband's consent or marital eligibility criteria for the use of hormonal methods in the structured part of the interview, four providers admitted they would be reluctant to prescribe unmarried women contraceptives (Table 4.7). Two nurses said they would not prescribe contraceptives to recently married women who wanted to postpone childbearing without the consent of the husband for fear of retaliation. The question of whether the provider would prescribe FP to non-married women raised confusion as providers considered that a woman who came for FP was 'in union', a common marital status in Guatemala. To this question, one doctor and one nurse answered that unmarried adolescent women would 'already come pregnant' to the GHC and would be advised to start using FP when their baby was six months old (when the protecting effect of breastfeeding stopped). All service providers agreed that women can access hormonal contraceptives without the consent of their husband but at least five expressed a strong preference of contraceptive use being discussed within the couple (Table 4.7). The prescription behaviour among service providers at the GHC may be reflected in the characteristics of the FP clientele at the GHC. Among the FP clients, only two out of 66 were nulli-parous; all were married or in union except for one single mother.

Few service providers reported knowing the specific age, parity and marital eligibility criteria of the Reproductive Health Programme policy

guidelines regarding sterilisation (there are no specific restrictions in the norms and guidelines, sterilisation is possible upon woman's personal consent) and, again, differences appeared between providers (Table 4.7). Testimonies in the women's focus groups discussions and in-depth interviews with more senior providers suggested that it very much depended on the individual provider:

'Yes, it depends on the doctor, each one has his own criteria...and because there is nothing established...not everyone will accept to operate even though she has the form in which she states that she accepts to be operated...but sometimes, they (providers) start discussing: 'What do you think? Are you sure that you want it or not?' (Doctor (1) at the GHC).

Whereas service providers appear to agree that the husband's consent is not needed when providing hormonal methods, more providers say that they would ask the consent of the husband for sterilisation due to social pressures (Table 4.7):

'This is a theme of discussion...because there is a new law now that SHE has to decide with the knowledge of one more person but it does not need to be the husband...so they can get operated without the consent of the husband but a lot of DR's at the level of the hospitals complain because they say that if they will operate her, because we are an area of machismo, the husband will come and he will threaten or kill me because I did it...' (Doctor (1) at the GHC).

Three providers said they would not recommend sterilisation to couples that do not seem to 'get on' (judging from the testimonies of the patient during the brief consultation) because, in the event that the couple separates, the woman's infertility might prevent her from establishing a new union. It could be that women in the *aldeas* are more likely to be seen as victims of 'machismo' and male dominance which could compromise their chances of getting permission for sterilisation. Several providers added that it was culturally not accepted for a woman to make her own decision about sterilisation (Table 4.7).

3.1.3.2 Service provider qualifications and inappropriate management of side effects

Oral contraceptives can be provided by lower skilled personnel and the requirement of physicians to provide them might represent a barrier to FP provision (Shelton et al., 1992 p.1334). Generally, service providers with low qualifications are involved at different levels of service delivery at the GHC. However, the community-based health workers in the *aldeas* (health guardians and midwives) are, contrary to the norms of the Reproductive Health Programme which allows them to provide pills, condoms and the natural method, only involved in referring clients and distributing information. Several providers recognised that health guardians could be trained to administer Depo-Provera in order to overcome the access barriers for follow-up injections (exceptionally health guardians do). For sterilisation, women in the focus groups highlighted that they preferred the hospital because mobile sterilisation clinics tended to be staffed by medical students in training.

When discussing handling side effects during the in-depth interviews, two service providers stated they prescribed anti-inflammatory drugs or the pill to Depo-Provera users who experienced irregular bleeding, as recommended in the norms of the Reproductive Health Programme. Indeed, two Depo-Provera users who had received an injection and who experienced those side effects were intercepted at the exit of the GHC with a package of pills. Despite the fact that hormonal methods are not recommended for breastfeeding women, half of the Depo-Provera and pill users reported to still be breastfeeding.

Table 4.7

Eligibility criteria according to family planning service providers, Jocotán 2004 (order as in Table 4.2)

	Age Limits		Minimum parity		Marriage required		Husband's consent required		Provider's personal preferences and views
Governmental health centre									
	<i>P/I</i>	<i>S</i>	<i>P/I</i>	<i>S</i>	<i>P/I</i>	<i>S</i>	<i>P/I</i>	<i>S</i>	
1.	>20	?	0	?	No	?	No	No	'The man will kill me if I allow sterilisation without his consent'
2.	>15	?	0	?	No	?	No	?	'The majority of unmarried women come pregnant'
3.	<45	20-45	0	3	No	Yes	No	No	
4.	<45	?	0	?	No	?	No	?	'When they are 20-24 with children we will talk about FP'
5.	None	>26	0	3	No	Yes	No	Yes	'I prefer them to use FP when they are married'
6.	None	?	0	?	No	?	No	Yes	'I prefer the husband's consent for Depo-Provera and the pill'
7.	None	?	0	?	No	?	No	Yes	'I prefer if they talk to their husband first about using FP'
8.	>20	?	0	?	No	Yes	No	?	'One gives unmarried women wrong ideas by giving them FP'
9.	14-45	?	0	?	No	?	No	Yes	'I prefer the women to talk to their husbands when using FP'
10.	None	>30	0	?	No	?	No	?	'It is better to have at least one child before using FP'
11.	None	?	1	?	Yes	Yes	No	Yes	'The man might kill me if I prescribe FP without his consent'
12.	None	?	0	?	No	?	No	?	'Here in Guatemala having sex is equal to getting married'
13.	15-45	?	0	3	No	?	No	No	'Women do not really have the power to make own decisions'
Private family planning services									
	<i>P/I</i>	<i>S</i>	<i>P/I</i>	<i>S</i>	<i>P/I</i>	<i>S</i>	<i>P/I</i>	<i>S</i>	
14.	15-45	?	0	1	Yes	Yes	No	Yes	'It is better to have at least one child before using FP'
15.	>14	?	0	?	No	?	No	?	
16.	15-45	25-45	0	?	No	?	No	?	'I prefer it if they have at least one child before using FP'
17.	>15	?	0	3	No	?	No	?	'I do not prescribe the pill to (unmarried) adolescents'
18.	18-40	25-40	1	2-3	No	?	No	?	'I prefer them to talk to their husband when using FP'
19.	>20	NA	NA	NA	NA	NA	NA	NA	

P/I= Pill/Injection; S=Female sterilisation; NA=Not Available; FP=family planning

3.1.3.3 Provider bias

Provider bias as a medical barrier involves the practise of favouring certain contraceptive methods over others in the absence of a sound medical rationale and failing to respect the client's preference (Shelton et al., 1992 p.1334). Out of 19 providers, nine had reservations about at least one FP method: one auxiliary nurse claimed never recommending the condom because of its risk 'to stay inside'; another nurse said the condom 'gave bad results' and one senior staff member claimed the use of condoms caused vaginal ulcers because of the friction during sexual intercourse. Most service providers claimed that, because of the 'macho' culture, condoms are sold in small numbers and there is no demand for vasectomy. One provider reported generally advising mothers to use hormonal methods for spacing but recommended the condom in the case of a baby boy because hormonal methods could render the boy homosexual through the breast milk. One doctor and one nurse said they never recommended the pill because of its increased cancer risk. Five providers claimed never recommending the IUD because of increased risk of infection, perforation of the womb, risks involved for the unborn child or just because they 'did not like the method'. All service providers said that Depo-Provera is the most frequently offered because of its easy administration ('one injection every three months and that is it') and use ('one can forget the pill'). Eight service providers highlighted its additional advantage that the women can hide it from their husbands. Exit-interviews with FP clients revealed that clients were positively biased towards Depo-Provera as compared to the pill. When asked about the reason for their preference for the injection they gave several reasons: 'one can forget the pill' (N=9), 'the pill is

bad for one's health' (N=9), 'one has to keep on taking the pill' (N=6) and ascribed commodity ('one does not have to wash every month', referring to the absence of menstruation) or beneficial health effects of the injection (N=8). At least 22 of those clients said a doctor or nurse had recommended their FP method.

The majority of service providers (18/19) said they would advise sterilisation for women who wanted to stop childbearing; 17 out of 19 providers would advise the pill or the injection for spacing pregnancies. Only one APROFAM provider also mentioned vaginal tablets, condoms and breastfeeding, and one governmental provider natural methods and condoms for spacing pregnancies.

3.1.3.4 Policy or regulatory barriers

Policy or regulatory barriers hinder contraceptive promotion and development (Bertrand et al., 1995 p.67). Several senior service providers said that FP is not a policy priority for the Ministry of Health and is therefore not among the listed criteria that are assessed in terms of health intervention coverage. Service providers gave this as a reason for the lack of priority given to FP among service providers:

'Remember there are 26 programs of the Ministry of Health...FP is one of them, which is one of the last ones!...One launches oneself according to the moment, if the Ministry of Health says: 'Diarrhoea' one knows that this is going to be the measure (of coverage)...this is then important! If the Ministry of Health would say: 'Now the coverage is going to be about FP' I am sure that then we would all go in mass...and then the Ministry of Health will tell us that we have had coverage and they will applaud us

so we... because they made us very scared that they will cut our funding, and that there will be sanctions... ' (Service provider (13) at the GHC).

At least five senior service providers expressed their worries about the lack of financial continuity in coverage of the health care services (the Ministry of Health had just delivered a message stating that all training courses and meetings with *comadronas* and health guardians should be suspended) and, in particular, the financing of Depo-Provera. Senior providers involved at the policy level stated that Depo-Provera proved to be very expensive and that international funding which covers half of the costs would be cut. They claimed foreseeing 'disastrous consequences' with the possibility that the cheaper IUD, unpopular and more demanding in terms of facilities and equipment, would replace the increasingly accepted Depo-Provera. Finally, on many occasions during the study period, the author observed there was no directing staff member present at the service unit, which was identified as a medical barrier at the programme management level.

3.2. Does provider bias influence quality of care received by clients at FP services in Jocotán?

This section explores whether service providers expressed a cultural bias or had a biased attitude towards certain groups of patients or FP clients. The results are presented from the providers' as well as the clients' perspectives. The results on the providers' perspective were mainly obtained when discussing which were, according to service providers, the most urgent reproductive health needs in the town and the *aldeas*. The clients' perspectives were measured through focus group discussions (user-community) and the exit-interviews with patients and clients leaving the GHC.

3.2.1 Service providers' perspective

When introducing the general objectives of the study during the first day at the GHC one senior provider said, pointing at a group of indigenous women wandering into the GHC:

'Those people have not changed since the arrival of Christopher Columbus and they will not change for the next 500 years! They will have the number of children God sends them, as many as the number of knots in their umbilical cord...'

Generally, service providers considered sexually transmitted infections and promoting sexual health awareness and FP among all age and gender groups

to be a reproductive health priority for the town. The young people⁷ in the urban areas were identified as a particularly vulnerable group because of increasingly early onset of sexual activity. Service providers considered the reproductive health needs to increase the further away from the centre of town because people on the outskirts tend to be poorer, were less educated and had less access to information. For the *aldeas*, better access to services and more personnel, resources and time to offer child and maternal health care and, in particular, delivery services were considered urgent reproductive health priorities, as this quotation illustrates:

'And on another occasion there was a woman who had retained her placenta, the placenta had not come out! The wooden bed she had was far too small, she sat in the dark, and according to her she was waiting for the placenta but in fact the placenta HAD come out but she was not aware of it, it was on the floor below her! Those conditions obviously do not help and they themselves do not always prepare themselves to do the labour, at least in the cases that I have seen in terms of space, light and all...' (Ambulant doctor (2)).

Service providers thought reproductive health needs increased the further the *aldeas* were located from Jocotán town. The difference in reproductive health needs between communities was also reflected in the exit-interviews. Almost half of the FP clients from the town reported having had their last birth delivered in a hospital, whereas almost all clients from the *aldeas* reported having delivered their last child at home. Because maternal and child health needs in the *aldeas* were considered so high, only four providers considered FP to be as important in the *aldeas* as in the town. Those providers argued that because of the risks mothers were exposed to during and after subsequent deliveries, the

⁷ Young people refer to adolescents in their teenage years

emotional and physical stress caused by unwanted pregnancies and the heavy burden of ‘too many children’, FP should be promoted more in the *aldeas*.

Most service providers tend to find it more difficult to convince (‘*cuesta*’: ‘it is hard work’) people from the *aldeas* about FP compared to people from the town. All service providers who worked in the *aldeas*, including one *comadrona* speaking about her own community, expressed the difficulty of convincing *aldea* people of the benefits of FP:

‘They don’t understand what you are trying to explain...they understand everything the other way around...badly...they think that everything will harm them ...’ and *‘Yes, it is an excuse, they say it (FP) is bad, that they get ill, that it causes cancer in the womb and all that...They tell you all sorts of tales...’* (APROFAM (16) provider).

However, some providers admitted that interpersonal skills, trust, language use and time spent with clients from the *aldeas* will determine their acceptance of FP:

‘Yes, the people from the aldeas accept it (FP) but one has to be very careful in trying to convince them, talk to them in order to convince them because there are people who just go there and explain to them rapidly, they don’t understand and that is where they stay and so they won’t accept because they have not understood...so if a person goes, whom they know, who speaks Ch’orti, ...they might accept’ (APROFAM (14) provider)

Several service providers reported experiencing frustration about ‘not understanding’ the suspicion and distrust among the people from the *aldeas* towards interventions beneficial to their community. Two providers mentioned that previous disappointing experiences with health care organisations could explain this behaviour. Claims of ‘not understanding’ the people from the *aldeas* were more common among private service providers, among whom the majority reported having very few people from the *aldeas* among their clientele. Despite

daily contact with patients from the *aldeas*, even personnel based at the GHC seemed to be little aware of the health practises in the *aldea* communities. After one doctor (1) at the GHC claimed that most women in the *aldeas* deliver at home, the interviewer raised the question how they would cut the umbilical cord:

'I have no idea how they do it (laughs)! When I ask they say: 'YES! I delivered on my own'...and I think when they start feeling the pains, they use ANYTHING, knife...'

Most service providers say that the harsh socio-economic conditions reinforced by 'machismo', cultural ideas ('*Hay que tener cosecha*': one has to harvest (children)) and religious convictions ('*Los que Dios nos manda*': the number (of children) God sends us (we should have)) are the reasons for persistent high fertility in the indigenous communities. Family planning clients from the *aldeas* had 5.3 children on average compared to 3.2 children on average among clients from the town. The ideas that having a lot of children negatively affects the family's economy and that the men in the *aldeas* are to blame for desiring large families were also found in the focus groups:

'...like in the far distant aldeas the men do not care about the health of the woman...whereas here (in town) as a couple, one tries to see the welfare of the woman and oneself...many times the economical situation is a very important factor because one can not sustain all...and for the young people who are now growing up, they learn from the experiences their parents had and the suffering they had to go through to raise the children...they take the decision not to have too many children but in the aldeas they do not think like that' (Man from the district Mitch) .

One *aldea* patient at the GHC mentioned that the ambulant doctor sometimes arrived '*bravo*' (angry) saying there are 'too many malnourished children in this *aldea*'.

Overall FP use remains very low in the *aldeas*: one ambulant doctor reported that, in the 20 *aldea* communities the GHC covers, only five women were recorded as FP users. However, most providers recognised that FP is slowly getting accepted among the more ‘civilised’, ‘educated’ people from nearby *aldeas*. Several service providers recognised a general preference among indigenous people for the ‘natural’ FP methods but doubted whether the illiterate people from the *aldeas* are aware of their fertility and able to use those methods. Three providers claimed that women in the *aldeas* do not know when they are likely to get pregnant. However, one provider acknowledged that women do know that ‘preventing sperm from entering their body’ prevents pregnancy and one provider claimed they associated ‘keeping the child on the breast’ with not getting pregnant. At least five service providers highlighted other barriers to using the culturally more accepted ‘natural’ FP methods for indigenous women. They said that ‘macho’ men would not collaborate with their wives to use the withdrawal or rhythm method. Three providers claimed that because of this reason the women from the *aldeas* who said they were using ‘natural’ FP meant in fact they practised ‘having the number of children God sends’. However, four providers stated that, even in the town, women had difficulties understanding the rhythm method and that men were reluctant to use the natural (withdrawal) method.

Lack of courtship and formal marital arrangements are some of the reasons given by service providers based in the *aldeas* for the young age at first parity and high fertility levels:

‘Now, these things have changed, they see each other on the road...and suddenly...as if there is no real dating with caresses and talks, nothing

really, conversations or something like that, no. In the communities (aldeas), they only say: 'this one wants to go with this one' and there they go, there is not much space for dating or to get to know each other...they just got to know each other and they reach what they had to reach (sex) and then they are seriously committed...very often the girl becomes pregnant and if they unite she was very lucky...they do not control this...' (Nurse (10) at the GHC)

However, several service providers show a greater empathy towards people from the *aldeas* by pointing out that poverty and strong gender segregation gives the young people few other options than to start a family:

'Already from 7-8 years they take them to work, and they already put in their heads that they already are MEN! So ...like a joke they tell them that they already can sustain a woman and so on...and to the girl they say: 'So that you sustain your husband' ...or when they are very little they show her how to make tortillas...so the children have in their head that the girl is for the kitchen and the boy for the work...there are no dreams...the only dream they have is to sow corn, and to have a family...' (Provider (13) at the GHC).

3.2.2 Clients' perspective

Results from the exit-interviews and focus-group discussions suggest that patients and clients from the outskirts of town and the *aldeas* might experience discrimination at the GHC. A typical example of common complaints about waiting times is reflected in a comment from this man from Cementerio-Nuevo:

'There is a lot of discrimination because the people from the town think of themselves as 'ladino' and they just put you aside...there is preference among them so one notices these things and then one goes only once (to the GHC) and then one does not go anymore...'

and another man in the focus group from the district Mitch:

'One person whom they know, when they arrive, they attend them...a more humble person who comes from an aldea, from the rural areas, they do not attend them...they leave these people for the afternoon or for the next day and maybe these people should be seen earlier...because they have to walk sometimes very far...'

Indeed, the results from the exit interviews with FP clients show that people from the *aldeas* (N=42) waited 108 minutes between arrival at the GHC and receiving their contraceptive method whereas people from the town waited 48 minutes (N=24) on average. A slightly higher proportion of FP clients from the town (70 per cent) said to have experienced privacy as compared to clients from the *aldeas* (50 per cent). Due to the small sample size, none of the other indicators used to measure the received or perceived quality of care (whether the client received the desired information during the visit, whether the consultation lasted sufficiently long, whether the clients who had questions had the opportunity to raise them, whether the clients who were examined had been explained the purpose of the examination, whether the client understood the provider, whether the client was told when to return for follow-up, whether he/she had been denied access to the services before, whether other FP methods and delivery points were mentioned than the one prescribed at the GHC) was significantly different for *aldea* people compared to people from the town. Too few clients had experienced side-effects in order to compare the care received by clients from different place of residence.

The exit interviews with general health care patients showed some significant differences in the care received by the different population groups (Table 4.8). Among the three ethnic groups, indigenous people waited the longest but people of ‘mixed’ ethnicity were the least satisfied with the care they had received; few *ladinos* visited the GHC during the study period. People from town were in general more satisfied, more likely to have received the desired (FP) information and experienced privacy and waited less long compared to people from the *aldeas* (Table 4.8). None of the other indicators was significant.

Table 4.8

Quality of care indicators as received or perceived by patients exiting the GHC according to ethnic group and place of residence, Jocotán 2004 (averages and percentages)

Quality of care indicators*			
	Indigenous (N=96)	Mix (N=139)	Ladino (N=34)
Average waiting time (SE)	104 (6.8)	100 (5.6)	68 (12.1)
Were satisfied with their visit	86	77	94
Received the information they desired	85	77	94
Felt that consultation was sufficiently long	73	58	68
	Town (N=104)	Aldeas (N=165)	
Average waiting time (SE)**	82 (6.2)	108 (5.3)	
Were satisfied with their visit	88	79	
Received the information they desired	89	78	
Felt sufficient privacy during consultation	79	67	
Spontaneously received FP info at some point at the GHC	38	19	

*p<0.05

**p<0.001

Note: Other (insignificant) indicators were: whether the patients who had questions had the opportunity to raise them; whether the patients who were examined had been explained the purpose of the examination; whether the patient would recommend the services at the GHC to someone else; whether the provider said hello when entering the consultation; perception of the services in general

FP=Family planning

SE=Standard Error

4. Discussion

The use of various research instruments and approaches has allowed quality of care, access issues and medical barriers to be explored from the client, provider, community and researcher ('expert') perspective, and to identify some of the barriers to contraceptive use in the different indigenous communities in the Ch'orti area. The discussion will first highlight the main access, medical and quality of care barriers faced by all patients from the poorer indigenous communities seeking to access health care. Secondly, specific barriers to contraceptive use will be discussed. Thirdly, provider bias and how it has manifested itself in the data is discussed, and, finally, how the results could be generalised to the rest of Guatemala.

4.1. Which are the barriers to uptake of general health care services among the people from the outskirts of town and the *aldeas*?

The first and most important barrier to uptake of health care services among people from the *aldeas* remains physical or geographical access to services. Service providers recognise that accessibility to health care services has dramatically improved since ambulant doctors visit the *aldeas*, and the building of roads and bridges linking the *aldeas* with Jocotán town. However, people are still facing transportation costs, and visits of the ambulant doctor are irregular. A costly, long journey to Jocotán does not guarantee a consultation visit at the GHC because of a rigid registration system, and also runs the risk of long waiting

times. As a consequence, most patients who come to the GHC are from the nearby *aldeas*. According to service providers, high fertility in the *aldeas* further compromises access to services in that women with small children at home will be even less likely to be able to travel. In the *aldeas*, the improvised consultation settings with little privacy and lack of trust in the services organised by the GHC might deter women from consulting the male and/or young ambulant doctors.

People in the *aldeas* are, according to service providers, in need of ‘everything’ and are greatly under-served in terms of medical attendance and facilities. Service providers generally identified a need for maternal health care services to ascertain safe deliveries and reduce maternal mortality⁸ in the *aldeas*. Limited personnel and time spent in the *aldeas* to reach coverage of the health care targets prioritised by the Ministry of Health were identified as one of the reasons for the lack of FP promotion in the *aldeas*. Language barriers are an additional problem in the Ch’orti-speaking *aldeas*. Little contact and communication further prevents the building up of trust between *aldea* people and medical personnel and between biomedical and traditional providers.

All patients and clients, independent of their place of origin, are affected by the quality of care delivered at the GHC, the main provider for the indigenous communities (De Broe et al., 2005). Exit interviews provided some measure of how quality of care issues and medical barriers at the GHC affect clients’ satisfaction. Clients’ satisfaction plays a central role in ‘translating access and quality of care into positive outcomes such as program sustainability and

⁸ In 2003, six maternal deaths per 1200 live births (or 500/100 000) were registered and recorded by the GHC as compared to the estimated figure of 190/100 000 nationally

achievement of reproductive intentions’ (Williams et al., 2000). The erratic supply of medicine, lack of a physical medical examination, a rigid registration system, long waiting times, identified in previous studies as an important factor affecting the acceptability of FP services (Keller et al., 1975), and favouritism in patients’ attendance were the foremost mentioned and observed access and quality of care issues causing dissatisfaction among patients attending the GHC.

4.2 Which specific barriers do potential FP clients face in the Ch’orti area?

Potential FP clients in the *aldeas* have to get to the GHC in Jocotán, the nearest health post or seek FP services with the ambulant doctor. People in the *aldeas* are very dependent on the ambulant doctor’s visit for supply of contraception. A change in the visiting schedule has serious consequences for their continuation of FP use. ‘Machismo’ and religion remain strong cultural barriers in the *aldeas* and contribute to a low demand for FP. Both are reinforced by limited opportunities for the predominantly illiterate men and women in the *aldeas* to come into contact with the outside world, except through the Church. Service providers stress the important potential role that personnel sent out to the *aldeas* and community-based health workers can play in making FP more acceptable and accessible.

Exit interviews with patients exiting the GHC also reflected a limited knowledge of availability of FP and, among FP clients, of other FP supply points, alternative FP methods, and side effects of their prescribed method. Studies show that discussing the availability of choice and side effects of methods on first

contact is important because these will affect the client's satisfaction and, ultimately, the likelihood of continued contraceptive use (Pariani et al., 1991; Kreager, 1977). Receiving accurate information on FP methods will further increase the capacity of clients to resist ill-founded rumours (Keller, 1973). This is particularly relevant in a setting such as the *aldeas* where contact with medical personnel is limited and people rely on information from other members of the community.

Despite the fact that all providers reported having received FP training, auxiliary nurses in particular showed insecurity about their skills, which might make them reluctant to use them or to apply them badly (Bruce, 1990). No information was available on the content of their FP training or how often service delivery guidelines were disseminated. Most nurses received basic in-service training and it is likely that their knowledge and practises are based primarily on what, how and by whom they are taught (Hardee et al., 1998). Inconsistencies in FP recommendations, poor knowledge and implementation of contraindications, use of eligibility barriers and wrong interpretations of FP guidelines highlight an urgent need for FP training, uniform dissemination of information on FP guidelines and supervision of directing staff. Asking women to come back when their menses return does not meet the FP needs of those women who do not want to have children and are at risk of a subsequent birth (Speizer et al., 2000). Inadvertent provision of hormonal methods has not been found to be associated with greater risk of birth defects; however, providing condoms instructing women to use them until menses begin and then initiate the first pill cycle or consult the ambulant doctor for an injection could be a safer and easier follow-up

strategy for women in the *aldeas* (Stanback et al., 1997). Hardly any clients were denied FP, and no medical procedures and examinations were observed nor reported by service providers to be required in order to receive hormonal FP methods. Medical evidence does suggest that measuring blood pressure to check for hypertension is crucial for clients considering using hormonal methods, and that other risk factors (such as whether the client is older than 35 and smokes) should be carefully checked (Hatcher et al., 1994).

At the national FP programme level, the service delivery at the GHC suffers from problems with stock-out of FP methods, lack of FP options and short supplies of pregnancy tests, both crucial for the provision of safe and continued contraceptive use. The second most important issue at the national FP programme level is the anticipated contraction of the funding of the injection Depo-Provera, a method that is both easily administered and addresses the needs of users. An unplanned and ill-prepared transition from Depo-Provera to the, in the longer term cheaper, IUD option is likely to lead to declining contraceptive acceptance if not accompanied by high quality FP service delivery, improved facilities and training of providers. Finally, FP promotion could become a priority among governmental service providers if the Ministry of Health would incorporate it as a priority health intervention to be assessed in terms of coverage. The fact that all FP service providers report that they mainly talk about FP ‘when clients come and ask for it’ shows how FP is left to the client’s own initiative and is still considered a low priority.

In the following sections, examples of how the individual service provider plays a crucial role in determining the quality of FP service delivery are discussed. The results obtained indicate that provider bias has a more substantial impact than its definition as a sole medical barrier. So far, provider bias was considered a medical barrier which can be measured at the level of the individual service provider, ‘for example through the imposition of personal views as to what methods are appropriate for certain women or the misapplication of service guidelines’ (Bertrand et al., 1995 p.66). It is argued here that service providers are ‘biased’ because their actions are motivated by personal views and interpretations of norms and policy guidelines, rather than a lack of training or knowledge of service guidelines, potentially affecting all aspects of access and quality of care issues at the unit of service (Figure 4.2). Finally, provider bias potentially includes a cultural bias among *ladino* service providers towards the indigenous population, which will be discussed below.

4.3. How has provider bias manifested itself?

The issues discussed below have been summarised and presented aiming to achieve method and source triangulation by establishing the evidence of provider bias with more than one research instrument (Table 4.9). According to the norms of the Reproductive Health Programme (Ministerio de Salud Pública et al., 2002), ambulant doctors who go to the *aldeas* should take the three methods (pills, condoms and the injection) along with them. In two health areas around Jocotán the ambulant doctors restrict access to contraceptives; one reported not taking the condoms, one reported never prescribing pills. No data were collected

in the *aldeas* and so whether clients of those health areas receive information on alternative FP methods other than the ones taken by the ambulant doctor could not be verified. An ambulant doctor deciding not to take a certain contraceptive method along to the *aldeas* for medically unjustifiable reasons greatly compromises access to this method and reduces the potential for a net addition to contraceptive use (Jain, 1989). Similarly, their decision not to visit an *aldea* and respect the pre-arranged visit for other than exceptional circumstances is highly detrimental for the continuity of contraceptive use. In fact, two providers pointed out that two visits per month (instead of one) to the *aldeas* is an absolute minimum to allow contraceptive continuation and follow-up. Previous research clearly shows that the availability of choice in terms of FP methods and follow-up visits are beneficial to contraceptive continuation (Kim et al., 1992; Lapham and Parker Mauldin, 1985; Potter, 1971). Supplying all health guardians with pills and condoms and sustaining a ‘cold chain’ in the health posts to store Depo-Provera would be easily achievable improvements to secure continuation of contraceptive use in the *aldeas*.

A positive note, in terms of economic access, was that at least three service providers mentioned providing FP methods for free or to pay for transport when poor clients were unable to pay for themselves. However, economic access is compromised by the fact that some newly trained *comadronas* started charging for their services which could make their services less accessible for the poorest people in their communities depending on them. Community-based health workers are the first point of contact with the health care system and a potential source of FP information for the *aldea* communities.

Their failure to distribute the FP information they receive during the training sessions could, among the traditional *comadronas*, be explained by cultural barriers. However, *comadronas* and health guardians receive financial incentives to adhere to those responsibilities. Implementing FP programme guidelines and giving community based health workers more responsibilities by providing them with FP methods might institutionalise them as health workers as well as give them credibility in their communities. Additionally, the sheer presence of FP methods in the communities might familiarise the people in the *aldeas* with FP and help to influence social norms (Seiber and Bertrand, 2002).

It was unclear why the GHC in Jocotán had not adopted a similar attendance system as the GHC in Camotán⁹ where patients from the *aldeas*, because of their need to travel and exposure to climatic conditions, are attended in the morning and people from the town in the afternoon. Several providers and focus group participants suggested this as a way to facilitate access to the GHC for the people from the *aldeas*. The longer waiting time for FP clients from the *aldeas* compared to clients from the town is possibly explained by the fact that re-supply clients from the town are more likely to ‘pop in’ the GHC towards the end of the consultation. At those times there are less people queuing in front of the pharmacy so that clients from the town only spent a few minutes at the GHC in order to get their re-supply. The differences in waiting times between the patients from the *aldeas* and the town might be explained by the fact that several patients from far distant *aldeas* had reached the GHC too late for registration and had to wait to be seen last.

⁹ Camotán is the nearest town at 1 kilometre from Jocotán and capital of the *municipio* of Camotán. The two GHCs sometimes refer patients to one another and coordinate health activities.

Table 4.9

Provider 'bias' affecting the different elements of access and quality of care: triangulation by research instrument

		Research instruments detecting provider bias			
	Aspects of access affected by provider bias	FGD	In-depth Interview	Exit interview	Observations
Geographical access	Ambulant doctors failing to take available condoms and pills to the <i>aldeas</i>		X		
	Ambulant doctors not sticking to pre-arranged visit dates	X	X		X
Economic	Community based health workers trained by the GHC charging fees for their services		X		
Administrative	Failure to attend <i>aldea</i> patients in the morning at the GHC	X	X		X
	Longer wait for <i>aldea</i> -patients and clients compared to people from the town	X		X	
	Failure to attend patients and clients during opening hours of the GHC	X		X	X
Cognitive	Community-based health workers not distributing received FP information in their community in the <i>aldeas</i>	X	X		
	Service providers not using the opportunity of their medical visit to talk about FP	X	X		
	'Real' <i>comadronas</i> 'hiding' their services	X	X		
Psycho-social	Lack of respect or discriminatory treatment towards people from indigenous communities	X		X	X
	Quality of care issues affected by provider bias				
Choice	Only the injection offered in the <i>aldeas</i>		X		
	Over-emphasis and positive bias towards Depo-Provera at the GHC		X	X	X

		FGD	In-depth Interview	Exit interview	Observations
Information given to clients	Failure to provide informed choice		X	X	
	Failure to provide information on side-effects, FP re-supply sources	X		X	
	Limiting offering FP to pregnant women or women with a lot of (malnourished) children		X		
	Failure to use available IEC material		X	X	X
	Emphasising FP methods for spacing birth (whilst neglecting limiting)		X		
Technical competence	Young inexperienced medical staff to serve the <i>aldeas</i>	X	X		
	Failure to comply with <i>known</i> guidelines	X	X	X	
Interpersonal relationships	Patronising FP advice to clients	X	X		X
	Failure to <i>physically</i> examine patients for non-medical reasons	X	X	X	
Follow-up	Despite guidelines, failure to provide health guardians with pills and condoms	X	X		
	Failure to supply the pill in case of stock-out problems with Depo-Provera		X	X	
	Failure to supply health posts with gas for 'cold chain'		X		
Appropriate constellation of services	Offering pregnancy testing to selected number of patients		X	X	
	Failing to respect minimal privacy and hygiene despite available resources			X	X

FGD: Focus Group Discussions

GHC: Governmental health centre

MoH: Ministry of Health

One ambulant doctor's health area covers a population of 10,000 people. The ambulant doctor's gender, age, experience, training, empathy, flexibility, communication skills and insistence on respect of privacy during the consultation potentially have a large impact (in terms of number of patients) for people from the *aldeas* and the quality of care they receive. It was unclear whether the young apprentice doctors from the capital city, staffing the GHC and sent out to the *aldeas*, had received any specific training to attend these particularly 'hard-to-reach' ethnic populations who are often wary of outsiders. The fact that the majority of female clients in the *aldeas* are malnourished and anaemic is an extra medical challenge in the provision of safe contraception.

Provider 'bias' at the level of the service unit is likely to affect all clients consulting the GHC independent of ethnic or socio-economic group. The results showed indications of under-use of resources at the GHC in terms of the use of available medical personnel during opening hours of the GHC, FP IEC material and insufficient discipline among personnel to ensure minimal hygiene and privacy standards. The non-use of the IEC material provided by the Population Council might reflect the illiterate clientele. However, posters were an important source of information for clients coming to the GHC (De Broe et al., 2005) and have proved to be very effective in helping clients to remember contraceptive information (Haffey et al., 1984). Furthermore, lack of respecting privacy, denial of informed choice and information on alternative re-supply FP delivery points, restricting pregnancy testing facilities, neglecting or denying FP methods for limiting and patronising advice by *some* providers are likely to generate negative rumours and undermine the governmental FP programme (Bruce, 1990).

Medical barriers imposed by individual service providers with neither governmental policy endorsement nor medical justification equally affect all FP clients independent of socio-economic or ethnic group. Service providers were in particular negatively biased towards the IUD. The norms of the Reproductive Health Programme state that providers should recommend the IUD in the case of contraindications with hormonal methods (Ministerio de Salud Pública et al., 2002). Providers' reluctance to prescribe the IUD could compromise the success of future FP policy plans. Providers and many FP clients seemed to be equally positively biased towards the injection Depo-Provera. The several advantages of the injection (easier to use for women living far from a service facility who want to hide their method from the husband and for whom daily pill taking is inconvenient) have been previously reported (Bertrand et al., 2001). However, a service of good quality should allow clients to achieve their reproductive intentions rather than emphasising uptake of one particular FP method (Jain and Bruce, 1993). Finally, exit interviews represent the satisfied clients who have been able to continue their use and did not experience unaccepted side effects; however, the data from the inventory and follow-up system suggest that many FP clients had dropped out in previous months.

As reported in previous studies, eligibility criteria were equally used by private and governmental staff with low and high levels of professional qualifications; restrictions for female FP methods regarding age and disagreements among providers were common (Speizer et al., 2000). However, the study also found that service providers' accounts during the in-depth

interviews reflected subjective interpretations of guidelines and more restricting eligibility criteria steered by social norms compared to their statements during the structured part of the interview. This confirms the limitations identified by other studies of the instruments used by the Situation Analysis and the need for finer and more subjective measurements (Huntington et al., 1996). The in-depth interviews reflect that nulli-parous women are still more likely to face eligibility barriers than mothers. Young people in the *aldeas* are vulnerable to moving from childhood into early union and parenthood. Restricting age, marital and parity eligibility criteria are more likely to affect those young *aldea* people who want to take up contraception. Service providers should consider young age criteria for sterilisation if young couples in the *aldeas* are convinced they have achieved their desired family size. The contradictory eligibility criteria related to age, marital status and husband's consent among service providers raises the question as to what ultimately drives providers' prescription behaviour. Inconsistencies and contradictions between and within service providers in terms of eligibility criteria are likely to be conveyed to clients and contribute to the client's confusion. These contradictions also reflect the challenges for service providers to balance the respect of guidelines with norms and attitudes influencing the social environment. Providers have to navigate between law and a 'macho', religious society (Does one refer for sterilisation and prescribe hormonal contraception with or without the husband's consent? What is the position of the Church towards FP and what does one convey to religious clients?). Several providers expressed frustration at feeling powerless towards these cultural barriers. The providers' role could be one of mediator, urging women to express themselves and providing them with ideas they can use in arguing for their right

to practise contraception (Bruce, 1990). However, some service providers' encouragement 'to talk the husband first' for fear of retaliation, might only reinforce women's perception of dependence on their husbands' consent.

4.4. Are providers biased towards indigenous people from the *aldeas* or the outskirts of town?

There is a strong cultural and socio-economic divide between the people from the town and people from the *aldeas* that is reinforced by the geographical distance between the two and the barrier of the Ch'orti language. Few people from the town, including medical personnel, regularly visit the *aldeas*, which contributes to the lack of 'understanding' people from the *aldeas*. One private provider even highlighted the need for 'a sociologist to come and do a study to understand the people from the *aldeas*'. Generally, medical staff is more in contact with people from the *aldeas*, either because people consult the GHC or ambulant doctors and their technical assistant attend patients in the *aldeas*. Consequently, people from the *aldeas* are, when in contact with *ladino* people or people from the town, in the subordinate role of the patient with the communication on unequal terms. Service providers acknowledge that interpersonal skills, respect, time and the way one addresses the issue of FP are crucial to get the idea of contraception accepted. However, the high levels of illiteracy among indigenous clients cause some providers to give patronising FP advice, others go as far as blaming people for having 'too many children'. Assumptions of service providers that 'machos' men will not use condoms or consider vasectomy, and that female clients 'might

forget their pill’, were conveyed to clients and reflected in the exit interviews with FP clients, both compromising informed choice and impartial advice.

The difference in reported levels of satisfaction and quality of care received or perceived by the different patient groups might indicate that the indigenous patients or patients from the *aldeas* are being treated differently from the other patients. However, the observations could also be attributed to differences in socio-economic characteristics and accessibility to services between patient groups. Patients of ‘mixed’ ethnicity might be more likely to express dissatisfaction compared to indigenous patients who are, once they have gained access to (scarce and distant) health services, more likely to be happy to receive any type of care (Simmons and Elias, 1994). Likewise, higher educated patients from the town might be more likely to *ask* for FP advice compared to patients from the *aldeas*.

Three senior service providers expressed a condescending attitude towards indigenous people or people from the *aldeas*. More than half of the providers considered people from nearby *aldeas* or the outskirts of town to be more ‘civilised’, ‘awake’ or ‘to better understand their (reproductive health) needs’ compared to people from further *aldeas*, who were called ‘stubborn’ (‘sticking to their own ideas’) by several providers. The majority of service providers ascribed the differences between the people from the *aldeas* and the people from the town to extreme poverty, lack of educational opportunities and contact with the outside world, and strong cultural barriers in the *aldeas* as opposed to a more ‘liberal’ mentality in the town. However, three providers

pointed out that the socio-economic conditions in some parts of the outskirts of town are still very similar to those in far distant *aldeas*:

'...if we go to the district Mitch, there are many people who live like as if we were in aldeas such as Talquetzal, Ocumbela, who are people who still do not have a lot... of memory (laughs), I feel they still need a lot of education...' (Nurse (12) at the GHC).

4.5 What can be learned from FP service delivery in the Ch'orti area?

Despite the fact that service providers and client-users perceive a strong need for FP promotion and services, the data suggest that FP is still low on the priority agenda at FP service units and the national policy level. At the GHC, FP services are an incidental part of maternal and child healthcare for which the majority of the staff had little training. Only two doctors at the GHC are trained to insert the IUD, the future FP method to be introduced by the national FP programme. A declining fertility desire and increased demand for FP asks for greater prioritisation of FP promotion, continuous supply and improved follow-up mechanisms.

The most motivated Ch'ortis are willing to travel to the health post and the GHC where methods are offered for free. People on the outskirts of town are willing to pay for contraception at other supply points, or transportation to hospital facilities that include their method of choice, but still rely on the free service at the GHC. The majority of users at the GHC were first-time injection users. It will only be possible to sustain these FP clients by providing them with good quality of care leading to high satisfaction and ensuring follow-up and continuation of their preferred method Depo-Provera. In particular, the

indigenous people from the *aldeas* who access the free FP methods at the GHC are unlikely to move around supply points where they have to pay.

Previous studies have shown that exit interviews based on structured interviews tend to be positively biased (Simmons and Elias, 1994) and that small numbers of dissatisfied clients need to be ‘carefully heeded’ (Williams et al., 2000). Dissatisfaction rates among patients and FP clients exiting the GHC and perceptions within the community reflected a rather poor quality of care of the services offered by the GHC, despite echoes of recently improved attendance. Previous studies using community informants have found that, where quality was perceived better, the level of contraceptive use was higher than where facilities were regarded as poor, after controlling for individual-level factors (Mroz et al., 1999). Combining several interview techniques (structured with semi-structured interviews) revealed assumptions, personal interpretations of guidelines and more restricting eligibility criteria than the ones declared in the structured interview among service providers. The patronising and sometimes condescending attitude among service providers can not only be ascribed to their personality; the ability of providers to communicate well with clients is also influenced by managerial decisions, providers’ norms, training and lack of rewards (sufficient salaries) (Bruce, 1990). There is a need for competency-based training - the provider’s skills need to be regularly monitored - and FP programmes should reinforce programme guidelines and standards through supervision. Interventions, such as the development of explicit criteria for interpersonal interaction, could greatly improve quality of care (Bruce, 1990;

Hardee et al., 1998). Directing staff should therefore be present in order to increase supervision on interpersonal performance at the GHC in Jocotán.

The exit-interviews, observations and interviews with service providers suggest that resources are underused. To the question on how quality of care at the GHC could be improved, one senior service provider exclaimed: ‘*That we start working! Everything is there!*’. Services at the GHC would benefit from using the available staff and facilities in a more cost-effective and efficient manner, maximising use of the available IEC material, implementing the guidelines of the FP programme to ensure continued FP supply in the *aldeas* and making small adaptations such as attending *aldea* patients in the morning (independent of the length of the attendance register), cleaning the walls, repairing the curtains and benches and removing the public bin at the entrance of the GHC.

4.6 Methodological weaknesses of this study

This study and its instruments have a number of potential weaknesses. Exit interviews are, as mentioned earlier, possibly flawed because of courtesy bias and fear of criticising (health) authorities; some indicators of quality of care were based on previous experiences at the GHC and might have been affected by recall bias. The focus groups with community members from the outskirts of town were not capturing non-clients’ perceptions of facility quality, often considered an important and useful way to assess failure to practise contraception (Speizer et al., 2000). Participants in the focus groups were known to one another

because they lived in the same community, which might have prevented them from fully expressing themselves. Service providers could have been on their best behaviour (known as the Hawthorne effect) or reported what they thought the interviewer wanted to hear (the problem of reflexivity). Because providers were interviewed at the GHC, they could also have concealed poor performance of the services they work at. However, all service providers were willing to participate in the study and highlighted many perceived weaknesses of the FP service delivery in order to formulate ways for improvements. All interviews suffer to some extent from recall bias, interview fatigue (the respondent rushing through the interview or the interview being too long and demanding) and poor articulation. However, where possible, findings were corroborated by evidence from other data sources and methods. The use of a pre-conceptualised framework has helped to structure the interviews and identifying probes during the interviews and discussions but might also have hindered to some extent the ‘free’ emergence of concepts and themes during the interviews and subsequent identification of typologies in the analysis. The limited time and resources in the field restricted the possibility of listening to each of the tapes immediately after the interviews and adjust instruments as part of an iterative process. Instead, when important aspects of quality of care emerged (such as whether or not FP clients were taken their blood pressure during the consultations), the questions were added by hand to each interview sheet or question route. It should be noted that the author had met several of the FP service providers in Jocotán during previous voluntary work experience at the dispensary ‘Bethania’. This factor might have increased the trust and their willingness to participate in the study but might have introduced a reluctance to share personal information. The author,

aware of her biased feelings of sympathy towards the poor indigenous communities, aimed to formulate questions neutrally. Her connection with the Belgian nuns might have caused a certain reticence among participants to give their opinion on FP; however, the Belgian nuns were known to have become more 'open' towards FP. The author acknowledges that the fieldwork experience and subsequent analysis, will contribute to better interview skills in future research with more careful wording of questions, attentive reacting to prompts given by interviewees and involving quiet participants in the focus group discussions.

5. Conclusion

The Ch'orti area reflects the sharp socio-economic and ethnic divides in the Guatemalan society causing contraceptive behaviour to differ between ethnic groups due to differences in FP demand, access to services and the quality of care delivered at those FP services. Use of contraception remains low in the *aldeas* around Jocotán. However, the demand for and use of FP have steadily increased in Guatemala, even among indigenous, isolated communities such as the Ch'orti. 'Malthusianism of the poor'¹⁰, increased competition for land, educational opportunities and socio-economic aspirations all lead to declining fertility desire accompanied by increased unmet need and contraceptive demand. On the supply side, FP is more likely to get accepted when services are offered in a culturally sensitive manner. However, quality of care issues and provider bias as observed at FP services in Jocotán remain obstacles and compromise the potential of increased uptake of contraception among the indigenous communities. These observations could be generalised to other areas in Guatemala with strong ethnic divides and where the indigenous population mainly depend on governmental, lower quality services predominantly staffed by *ladinos*.

The question remains whether limited governmental resources can be used to improve FP service delivery in view of the many urgent health priorities in some of the rural areas in Guatemala. Health care services should be of

¹⁰ Poor families with limited resources learning through experience that having too many children affect the whole family's wellbeing and chances of survival and therefore deciding to take up FP (Cosío-Zavala, 1997)

sufficient quality to ensure that clients receive a safe and effective service that enables them to meet their reproductive health needs, a basic human right according to the International Conference for Population Development (ICPD) goals (United Nations, 1995). However, in many rural areas in Guatemala, it is only since 1997 and the introduction of SIAS that ambulant doctors reach the rural communities and community based health workers are being trained to deliver FP services. The growing demand for FP should be reinforced by governmental commitment towards increasing quality of care by motivating providers and stimulating leadership commitment. The role of the provider is crucial in settings where the number of personnel and supply points are limited. However, disorganisation and discontinuation of funding has led to the neglect of the public health sector in rural areas in favour of urban health services. Poor dissemination and implementation of FP programme guidelines are more likely to be observed at governmental service delivery points where staff receives low and irregular salaries, insufficient training and lack supervision, leading to low motivation and bad performance. These facilities are serving the populations most in need among whom high quality reproductive health care services could have the greatest impact on contraceptive behaviour and fertility levels.

The vast majority of the population of the *municipio* of Jocotán lives in the *aldeas* and on the outskirts of the town of Jocotán. In view of the great needs identified by services providers in terms of access to services, maternal and child health, malnutrition, FP, and gender issues, future studies should focus on collecting data in those often neglected and hard to reach communities. Finally, the slightest increase in educational levels has previously been shown to have an

effect on reproductive behaviour. A governmental commitment to improve educational levels among the predominantly illiterate population living in the *aldeas* and on the outskirts of Jocotán town will favour FP programs and will have an immediate effect on the well-being of these indigenous communities.

References

- Askew I., Mensch B. and Adewuyi A. (1994). Indicators for measuring the quality of family planning services in Nigeria. *Studies in Family Planning* 25(2), 268-283.
- Barry T. (1992). *Inside Guatemala*. New Mexico: The Inter-Hemispheric Education Resource Centre.
- Bertrand J.T., Guerra de Salazar S., de Mazariegos L., Salanic V., Rice J. and Kolars Sow C. (1999). Promoting birthspacing among the Maya-Quiche of Guatemala. *International Family Planning Perspectives* 25(4), 160-167.
- Bertrand J.T., Hardee K., Magnani R.J. and Angle M.A. (1995). Access, quality of care and medical barriers in family planning programs. *International Family Planning Perspectives* 21(2), 64-69+74.
- Bertrand J.T., Seiber E. and Escudero G. (2001). Contraceptive dynamics in Guatemala. *International Family Planning Perspectives* 27(3), 112-118.
- Brown L., Tyane M., Bertrand J., Lauro D., Abou-ouakil M. and deMaria L. (1995). Quality of care in family planning services in Morocco. *Studies in Family Planning* 26(3), 154-168.
- Bruce J. (1990). Fundamental elements of the quality of care: A simple framework. *Studies in Family Planning* 21(2), 61-91.
- Chaturvedi N. (2001). Ethnicity as an epidemiological determinant-crudely racist or crucially important? *International Journal of Epidemiology* 30, 925-927.
- Chen C.H.C., Santiso G R. and Morris L. (1983). Impact of accessibility of contraceptives on contraceptive prevalence in Guatemala. *Studies in Family Planning* 14(11), 275-283.
- Colby B. and van de Berghe P. (1961). Ethnic relations in south-eastern Mexico. *American Anthropologist* 63, 772-792.
- De Broe S., Hinde A., Matthews Z. and Padmadas S. (2005). Diversity in family planning use among ethnic groups in Guatemala. *Journal of Biosocial Science* 37(3), 301-317.
- Gay J. (1988). The relationship between families and maternal/child health services in Latin America: Recommendations for action. In Moreno E., Nestor E., Suarez-Ojeda G. and Anderson C. (Eds.), *Evaluation of maternal-child health services* (pp. 87-151). Buenos Aires: Pan American Health Organization.
- Glaser B.G. and Strauss A.L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine de Gruyter.
- Haffey J., Zimmerman M.L. and Perkin G.W. (1984). Communicating contraception. *Populi* 11(2), 35.

- Hammersley M. (1990). *Reading ethnography: A critical guide*. London, UK: Longman.
- Hardee K., Janowitz B., Stanback J. and Villinski M.T. (1998). What have we learned from studying changes in service guidelines and practises. *International Family Planning Perspectives* 24(2), 84-90.
- Hatcher R.A., Trussell J. and Stewart F. (1994). *Contraceptive Technology*. New York: Irvington Publishers.
- Huntington D., Miller K. and Mensch B. (1996). The reliability of the Situation Analysis Observation Guide. *Studies in Family Planning* 27(5), 277-282.
- Jain A.K. (1989). Fertility reduction and the quality of family planning services. *Studies in Family Planning* 20(1), 1-16.
- Jain, A. K. and Bruce, J. (1993). Implications of reproductive health for objectives and efficacy of family planning programs. Report number: 8. Program Division Working Paper. New York: The Population Council.
- Keller A., Sanchez Villareal F., Rabago de Rodriguez A. and Correu S. (1975). The impact of organization of family planning clinics on waiting time. *Studies in Family Planning* 6(5), 134-140.
- Keller A.B. (1973). Patient attrition in five Mexico City family planning clinics. In Mayone Stycos J. (Ed.), *Clinics, contraception and communication* (pp. 25-50). Des Moines: Meredith Corporation.
- Kim Y.M., Rimon J., Winnard K., Corso C., Mako I.V., Lawal S., Babalola S. and Huntington D. (1992). Improving the quality of service delivery in Nigeria. *Studies in Family Planning* 23, 118-127.
- Kitzinger J. (1994). The methodology of focus groups: The importance of interaction between research participants. *Sociology of Health and Illness* 16, 103-121.
- Kitzinger J. (1995). Introducing focus groups. *British Medical Journal* 311, 299-302.
- Koenig M.A., Hossain M.B. and Whittaker M. (1997). The influence of quality of care upon contraceptive use in rural Bangladesh. *Studies in Family Planning* 28(4), 278-289.
- Kreager, P. (1977). Family planning drop-outs reconsidered: A critical review of research and research findings. London: International Planned Parenthood Federation.
- Kumar, S., Jain, A., and Bruce, J. (1989). Assessing the quality of family planning services in developing countries. Report number: 2. Program Division Working Paper. New York: The Population Council.

Lapham R.J. and Parker Mauldin W. (1985). Contraceptive prevalence: The influence of organized family planning programs. *Studies in Family Planning* 16(3), 117-137.

Lincoln Y.S. and Guba G.E. (1985). *Naturalistic inquiry*. Beverley Hills, CA: Sage.

Mason J. (2002). *Qualitative researching*. London, UK: Sage.

Metz B. (2001). Politics, population and family planning in Guatemala: Ch'orti Maya experiences. *Human Organization* 60(3), 259-271.

Miller R., Fisher A., Miller K., Ndhlovu L., Ndugga Maggwa B., Askew I., Sanogo D. and Tapsoba P. (1997). *The Situation Analysis Approach to assessing family planning and reproductive health services: A handbook*. New York: Population Council.

Miller R.A., Ndhlovu L., Gachara M.M. and Fischer A.A. (1991). The Situation Analysis: Study of the family planning program in Kenya. *Studies in Family Planning* 22(3), 131-143.

Ministerio de Salud Pública, Sistema Integral de Atención de Salud, Instituto Guatemalteco del Seguro Social, and Programa Nacional de Salud Reproductiva (2002). Tomo I: Planificación familiar: Normas para la entrega de métodos. Guatemala City: Ministerio de Salud Pública y Asistencia Social.

Ministerio de Salud Pública y Asistencia Social (MSPAS), Instituto Nacional de Estadística (INE), Universidad del Valle de Guatemala (UVG), Contros para el Control y Prevención de Enfermedades (CDC), Agencia de los Estados Unidos para Desarrollo Internacional (USAID), Agencia Sueca de Cooperación para el Desarrollo Internacional (ASDI), Proyecto de Apoyo a la Reforma del Sector Salud (APRESAL/UE), Programa de las Naciones Unidas para el Desarrollo (PNUD), Fondo de las Naciones Unidas para la Infancia (UNICEF), Fondo de Población de las Naciones Unidas (FNUAP), Proyecto POLICY II, and CARE Guatemala (2003). Guatemala, Encuesta Nacional de Salud Materno-Infantil 2002. Guatemala City, Guatemala: Ministerio de Salud Pública y Asistencia Social.

Morgan D.L. and Krueger R.A. (1993). When to use focus groups and why. In Morgan D.L. (Ed.), *Successful focus groups: Advancing the state of the art* (pp. 3-19). Newbury Park, CA: Sage.

Mroz T.A., Bollen K.A., Speizer I.S. and Mancini D. (1999). Quality, accessibility, and contraceptive use in rural Tanzania. *Demography* 36(1), 23-40.

Pariani S., Heer D.M. and Van Arsdol M.D.J. (1991). Does contraceptive choice make a difference to contraceptive use? Evidence from East Java. *Studies in Family Planning* 22, 384-390.

Pebley A.R., Goldman N. and Robles A. (2005). Isolation, integration, and ethnic boundaries in rural Guatemala. *The Sociological Quarterly* 46, 213-236.

Potter R. (1971). Inadequacy of a one-method family planning program. *Studies in Family Planning* 2(1), 1-6.

Reproductive Health Unit of the Ministry of Public Health (1992). An assessment of medical barriers to family planning programs in Guatemala. Guatemala: Ministry of Health.

Ritchie J. and Lewis J. (2003). *Qualitative research practise*. London: Sage.

Santiso-Galvez R. and Bertrand J.T. (2004). The delayed contraceptive revolution in Guatemala. *Human Organization* 63(1), 57-67.

Seale C. (1999). *The quality of qualitative research*. Oxford: Blackwell.

Seiber E.E. and Bertrand J.T. (2002). Access as a factor in differential contraceptive use between Mayans and *Ladinos* in Guatemala. *Health Policy and Planning* 17(2), 167-177.

Shelton J.D., Angle M.A. and Jacobstein R.A. (1992). Medical barriers to access to family planning. *Lancet* 340, 1334-1335.

Simmons R. and Elias C. (1994). The study of client-provider interactions: A review of methodological issues. *Studies in Family Planning* 25(1), 1-17.

Speizer I.S., Hotchkiss D.R., Magnani R.J., Hubbard B. and Nelson K. (2000). Do service providers in Tanzania unnecessarily restrict clients' access to contraceptive methods? *International Family Planning Perspectives* 26(1), 13-42.

Stanback J., Thompson A., Hardee K. and Janowitz B. (1997). Menstruation requirements: A significant barrier to contraceptive access in developing countries. *Studies in Family Planning* 28(3), 245-250.

Strauss A. and Gorbin J. (1999). *Basics of qualitative research: techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.

Terborgh A., Rosen J.E., Santiso-Galvez R., Terceros W., Bertrand J.T. and Bull S.E. (1995). Family planning among indigenous populations in Latin America. *International Family Planning Perspectives* 21(4), 143-149.

Tsui A.O. and Ochoa L.H. (1992). Service proximity as a determinant of contraceptive behaviour: Evidence from cross-national studies of survey data. In Phillips J. and Ross J. (Eds.), *The role of family planning programs as a fertility determinant*. London: Oxford University Press.

Twum-Baah, K. A. and Stanback, J. (1995). Provider rationales for restrictive family planning service practices in Ghana, Accra. Ghana, Research Triangle Park NC USA: Family Health International.

United Nations (1995). Report of the International Conference on Population and Development. Report number: E.95.XIII.18. Cairo, 5-13 September 1994.

Williams T., Schutt-Ainé J. and Cuca Y. (2000). Measuring family planning service quality through client satisfaction exit interviews. *International Family Planning Perspectives* 26(2), 63-71.

Yin K.R. (2003). *Case study research: Design and methods*. London: Sage.

Chapter 5

Conclusions

Guatemala's demographic transition started later and progresses more slowly compared to most other countries in Latin America. Despite a recent acceleration of the fertility decline, fertility levels and infant morbidity and mortality remain high and contraceptive use low. Structural or political and socio-economic, and cultural factors contribute to this fact. Guatemala is not only one of the poorest countries in Latin America, it also has a large and diverse indigenous population. In particular the indigenous population continues to lag behind in terms of its human development and, of interest in this study, reproductive behaviour. This thesis deals with two very important questions: Who are the indigenous people behind these statistics? and: Why do they continue to lag behind the rest of the Guatemalan and Latin American population? This thesis has highlighted the extent of ethnic diversity in reproductive behaviour in Guatemala and has aimed to contribute to a greater understanding of these differences by using a broad array of data, techniques and approaches.

The people of Guatemala are all descendants from the Spanish conquerors and original indigenous people and are thus of 'mixed' descent or '*mestizos*'. Despite modernisation and increased loss of indigenous values and customs, Guatemala is still characterised by persistent ethnic segregation and discrimination. Better socio-economic conditions and access to health care services have mainly benefited the *ladino* and urban population whereas the indigenous population predominantly live in more isolated rural areas with little access to education and modern health facilities.

The classification criteria used to distinguish ethnic groups will influence statistics on ethnic differences in reproductive outcomes. However, ethnic classification in Guatemala has become increasingly problematic because of the gradual disappearance of the cultural markers of ethnicity, such as speaking an indigenous language and wearing traditional dress, which are used in most surveys, censuses and studies in order to classify ethnic groups. This study used culturally more sensitive and appropriate ways of classifying ethnic groups.

This thesis has a national perspective and incorporates a case study. Chapter Two presents the results of the analysis on fertility trends for Guatemala at the national level. No recent studies have presented a detailed analysis of Guatemalan fertility. The following two chapters present the case study of the hitherto neglected Ch'orti area. The majority of the indigenous groups in Guatemala inhabit the northern highlands or western part of the country whereas the Ch'orti are an isolated indigenous group who live in the east, surrounded by a *ladino* (non-indigenous) population. As in the rest of Guatemala, the indigenous Ch'orti language and traditional dress are gradually disappearing. Jocotán, the capital of the Chorti area, is continuously growing through the influx of immigrants from the rural indigenous villages (*aldeas*) creating an ethnically very diverse population. These population characteristics at the level of a town were ideal for a case study on ethnic differences in reproductive behaviour in modern Guatemala.

Defining who are the indigenous people is the first requirement for successfully targeting those populations who continue to lag behind in their

fertility transition. Chapter Three illustrates the extent of ethnic diversity in reproductive health indicators by using culturally more accurate ethnic classification criteria. Providing geographical access to reproductive health care services has proven insufficient to reach the poor and most needy indigenous populations in Latin America. Understanding why certain population groups continue to lag behind compared to others in terms of reproductive health indicators determines the success of future population policies and those population's future well being. Chapter Four highlights the issues of quality of care and medical barriers at health care services available and accessible to the indigenous population which might be responsible for the low uptake of contraception among those communities.

The data used for this thesis come from different sources. For the national data, four Guatemalan surveys (1987, 1995, 1998-99 and 2002) and one census (2002) were used. The data on the Ch'orti area are unique and original data collected by the author during fieldtrips in 1994, 2001 and 2004 in the town of Jocotán and two of its *aldeas*. This study has used different types of methodologies and techniques and has combined a qualitative with a quantitative approach. The thesis was structured and presented in the format of four papers with Chapter Three including two smaller papers. In this current chapter the original contribution, data, methods and main results of each chapter are summarised. Subsequently, some suggestions for further research and finally, policy implications are being discussed.

1. Summary of central findings

1.1 Diversity in fertility patterns in Guatemala

1.1.1 Importance of the subject and value added

Guatemala's annual population growth rate of 2.8 per cent (Population Reference Bureau, 2005) is among the highest in Latin America and compromises the country's potential human and economic development by putting additional strain on limited resources. Only recently has the Guatemalan government committed itself to a Reproductive Health Programme, established in 2001 by law. Fertility levels are the prime indicators of reproductive behaviour but no recent studies have presented detailed analysis and assessment of the quality of fertility data for Guatemala. In order to define national population and health policies and encourage the success of family planning (FP) programmes, understanding which sectors of the Guatemalan society continue to lag behind in their demographic transition is crucial. The first part of Chapter Two aimed to describe past and recent fertility patterns and study the recent fertility decline in Guatemala. The added value of Chapter Two was to combine census and all survey data available for Guatemala in order to estimate fertility trends. Because the classification of ethnic groups differs between surveys and census, ethnic differences in fertility patterns could not be presented. Instead, fertility patterns were calculated for the urban and rural population. In the surveys and census, fertility estimates are based on period-measures of age specific fertility rates (ASFRs) over, in most surveys, a three-year period before the survey, or in case

of census data, one year period before the census. The analysis in this chapter has described fertility trends over the past 20 years, and identified rural and urban trends in a way, which has not been previously done for Guatemala.

Because ethnic and geographical segregation are important in Guatemala (see Chapter One), substantial regional and local-level variation in fertility levels are associated with ethnic divides. Understanding which factors drive fertility behaviour contributes to the success of governmental policies that are aimed at slowing population growth and improving reproductive health outcomes. Demographic and Health Survey (DHS) and National Maternal and Child Health Survey (NMCHS) data appeared unsuited to identifying this kind of geographical patterning. The *municipio*-level (the *municipio* is the smallest unit for which fertility data are published in the census reports) data of the 2002 population census were used to analyse geographical variations in fertility in Guatemala. Geographical patterns have been presented in the form of previously unpublished geographical maps of Guatemala produced by the author. This study also made a first attempt to study the independent effect of ethnicity and ethnic segregation on fertility in Guatemala. A theoretical framework that starts from the classical demographic transition theory whilst focussing on the theory of diffusion underpins Chapter Two. The diffusion theory suggests that ethnic segregation in Guatemala inhibits the spread of FP information and modern reproductive ideas and behaviour, which in its turn delays the start and prevents the smooth progress of the fertility transition.

The contribution of this chapter was to describe past and recent fertility trends for Guatemala in order to extend the knowledge of reproductive behaviour in urban and rural Guatemala. In addition, ethnic segregation is illustrated through original geographical maps of fertility levels and its determinants. Finally, a careful attempt was made to test the theory of diffusion to the Guatemalan context.

1.1.2 Data, methods and main results

For the analysis, data from the 1987, 1995 and 1998-99 DHSs, the 2002 NMCHS and the 2002 population census at the *municipio*-level were used. The census, using self-identification as a classification criterion for ethnic groups, classified 41 per cent of the population as indigenous, an underestimation of the average estimation of 50 per cent but closer than the 30 per cent as estimated by the NMCHS of 2002. P/F ratios (ratio between the reported average parity of women of a particular age (P) and the average parity women of that age would have attained if they had been subject to current ASFRs (F)) are used as an analytical and diagnostic tool and at the same time quality control measure of the data. Secondly, the ASFRs, using the exact exposure within each age group in each period and over four-year periods between 1968-71 and 2002 for the four surveys (1987, 1995, 1998-99 and 2002) were calculated to examine trends in fertility.

The P/F ratios for the 1987 and 1995 DHSs did not indicate a decline in fertility. The P/F ratios for the whole population from the 1998-99 DHS show a very 'typical' and consistent trend, being close to 1.0 in the younger age groups

(their current fertility corresponding with their fairly recent past fertility) and increasing steadily for the older age groups, indicating a start of a fertility decline. The survey and census data for 2002 are consistent in that the high P/F ratios for both datasets could be explained by underreporting of births in the last year or a rapid and sudden decline in fertility over the three-year period before the survey and census. The ASFR based on exact exposure show a steady but very slow decline in fertility over the past 25 years until 1999. Rural areas were characterised by a clear fertility decline whereas urban fertility levels seem to have stagnated between mid 1980s and the end of the 1990s. A pronounced decline in fertility since 1999 took place, which was particularly sharp in the year before the survey and census of 2002.

Finally, the geographical maps showed that ethnic groups are concentrated in certain parts of the country and that similarly, educational and fertility levels show clear geographical patterning. The regression model found that the proportion of indigenous people and the index of diversity remained significant in the model predicting the TFR at the *municipio*-level. The results also confirm the ideas of the classic demographic transition theory underlining the impact of illiteracy and poverty (among the rural and more neglected indigenous population in terms of health care and educational provision) as main determinants of fertility. The results provide support to the theory of diffusion that cultural factors and ethnic diversity have a direct and indirect (as barriers to diffusion of modern reproductive ideas) effect on fertility levels, possibly explaining the stagnation of fertility decline in urban Guatemala in the past.

1.1.3 *Limitations of the study*

Fertility levels based on survey data are more likely to be accurate when based on large random samples. This is the case for most surveys available for Guatemala; however, the 1987 and 1998/99 data set were limited to 5160 and 6021 women of reproductive age, relatively small sample sizes compared to the 1995 survey with a sample size of 12403 women. Consequently, any distribution and categorisation of the population according to demographic characteristics and fertility determinants such as level of education or place of residence will reduce the sample sizes. Also, because this study focussed on regional differences, categorisation of the study variables at the level of the *departamentos* was not always possible as samples became non-representative. The survey data, because ethnic classification criteria differed between samples, did not allow verifying ethnic differences in fertility trends. The assumption was made that indigenous people were more likely to live in rural and *ladinos* more in urban areas. However, this is not necessarily the case in all areas of Guatemala, in particular the Central region where Guatemala City is located, is characterised by a wide mix of ethnic populations. The urban and rural fertility data are affected by rural-urban migration; recent high levels of rural emigration to urban areas inflate fertility levels in urban areas unless accompanied by very rapid change in fertility behaviour once migrated to the urban areas.

The census data were not publicly available at the individual level and the analysis was undertaken with *municipio*-level data, limiting the interpretation and extrapolation of the results. The census data also limited the number of

independent variables measuring cultural diversity that could be included in the regression model and only proxy variables such as the index of diversity were used. However, the diversity index does not measure the full extent of ethnic diversity in Guatemala as it does not take into account the inherent diversity of the Maya population. Despite this, the model still highlighted the importance of the index in explaining fertility levels in the Guatemalan context.

1.2 Diversity in reproductive behaviour among ethnic groups in Guatemala: a case study of the Ch'orti area

1.2.1 Importance of the subject and value added

Defining the most vulnerable populations and identifying what their needs are remain priorities in order to formulate reproductive health policies and implement programmes successfully. This chapter, by using a more accurate classification of ethnicity, identifies which groups are still having low levels of contraceptive and modern pregnancy-related care use. This study, based within a town, also highlights the extent of ethnic diversity in reproductive health outcomes and the importance of population policies that value and address the divergent reproductive health needs of the different population groups.

This study takes into account the cultural changes in terms of ethnic identification. In the process of modernisation and *ladinisation*, the customs of wearing traditional dress and speaking an indigenous language are often abandoned first by people who might still consider themselves indigenous. Many

scholars therefore consider the classification based on language and dress inappropriate for the current Guatemalan context. In this study, as opposed to other studies, censuses and most surveys, ethnic classification was based on self-identification or place of birth. In the town of Jocotán, hardly anyone speaks Ch'orti or wears traditional dress. According to the classic ethnic classification and the DHS, the entire population in this town would be considered *ladino*. However, the majority of the population in this town originates from the surrounding *aldeas* and the majority of respondents in the survey reported considering themselves indigenous. A smaller group considered themselves *ladino* and another small group of mothers considered themselves of 'mixed' ethnicity.

The Ch'orti area in Guatemala is largely understudied. Most previous studies on ethnic differences in reproductive health behaviour focussed on the areas with the largest concentration of ethnic people. This setting is unique in the sense that the area is located in a region predominantly inhabited by a *ladino* population.

1.2.2 Data and main results

In Chapter Three, the results of the household survey data collected in the town of Jocotán in 2001 and in two *aldeas* (Tesoro Abajo and Pacrén) in 1994, were presented. The sample for Jocotán included mothers of reproductive age who were or had been in consensual union or married. The samples in the two *aldeas* included only mothers who were between 20 and 35 years of age. The first

section of Chapter Three discusses the results on contraceptive use; in the second section the data on use of modern pregnancy-related care are presented. In-depth exploratory interviews with five different FP providers in the town of Jocotán provided the necessary background information in order to get contextual information on FP service delivery in Jocotán.

The descriptive results revealed sharp divisions between ethnic groups in the use of contraception and modern pregnancy-related care. In the *aldeas* in 1994, hardly any women used contraception and nearly all had given birth at home. Within Jocotán town in 2001, *ladino* mothers were much more likely to use contraception and take up modern pregnancy care services (measured in terms of giving birth in a hospital facility as opposed to at home and having used modern pregnancy care services for pre- and postnatal care) compared to indigenous women; mothers of ‘mixed’ ethnicity had intermediate reproductive behaviour. Similar results were obtained when using place of birth as a way to classify ethnic groups. Mothers born in the town of Jocotán or a city were much more likely to use contraception and take up modern pregnancy care services compared to mothers born in an *aldea*. The ethnic differences remained significant when controlling for demographic, socio-economic (level of education, professional activity, living conditions) and one cultural indicator. The differences between the town and the *aldeas* could partly be ascribed to limited geographical access to services in the *aldeas*. The results observed within Jocotán town show that differences between self-identified ethnic groups in reproductive health outcomes persist, even at a small geographical scale, despite equal geographical access to services. The reasons for non-use of contraception

give some indication that cultural barriers such as religious beliefs and customs are responsible for these differences. However, despite controlling for several socio-economic indicators, other unmeasured socio-economic factors (such as level of income in order to afford transportation costs and private health care services) might also further explain ethnic differences within Jocotán. A different hypothesis emerged from the in-depth interviews with service providers. It was suggested that provider bias and quality of care at service points available and accessible to the indigenous communities in the Ch'orti area, are responsible for their low uptake of FP and modern pregnancy care. This hypothesis was investigated in Chapter Four.

1.2.3 Limitations of the study

This study focuses on the Ch'orti area and it could be argued that the observations are mainly relevant for this area. However, Jocotán is a fairly 'typical' town in the Guatemalan context and the findings are in line with the literature on ethnic segregation for the whole of Guatemala. The samples, both for the *aldeas* and the town of Jocotán, are representative but small. This limited the multivariate analysis and potential categorisation of the data.

The percentages presented in this study are a better reflection of the ethnic diversity in reproductive health outcomes in Guatemala, compared with studies which classify all people who have abandoned ethnic outward markers such as language and dress as *ladino*. However, the samples only included mothers, and their levels of contraceptive use will tend to overestimate

contraceptive prevalence rates among women of reproductive age. The data for the *aldeas* date from 1994 and do not reflect the current levels of contraceptive use in the *aldeas*. Finally, in the study on pregnancy related care, it would have been useful to have data on the combination of traditional and modern pregnancy related care, typical for the Guatemalan context, and on pre- and postnatal care for the *aldeas*.

It should be noted that the results of the regression suggest a strong effect of ethnicity on reproductive indicators whereas the results of the regression in Chapter 2 indicate a rather weak effect of ethnicity on fertility levels. First, the results refer to different outcome variables; secondly, completely different types of data sets are used (aggregate national census data as opposed to local individual data based on a small sample) and thirdly, the definition of ethnicity differs in both types of datasets. As such, major comparisons are difficult to draw. The census data in Chapter 2 are aggregate national *municipio*-level data underestimating the proportion of indigenous people and only a crude measure of ethnic diversity was used in the regression model. The fact that the former two variables were significant could be considered as confirming the strong impact of ethnicity on reproductive behaviour in Guatemala, as suggested in Chapter 3.

1.3 Quality of care and provider bias at family planning services in the Ch'orti area of Guatemala

1.3.1 Importance of the subject and value added

Improving access to health care services has been at the top of the priority list of the Ministry of Health of Guatemala. Since 1997, the Integral System of Health Care has aimed to provide access to primary health care services in the most remote *aldeas* through the presence of trained health guardians and *comadronas* and visits of ambulant doctors. Since 2001, the Reproductive Health Programme assures access to contraception at governmental clinics, posts and centres. As disparities in health outcomes between social groups persist to a remarkable extent in Guatemala and Latin America as a whole, policy makers have increasingly turned their attention to issues of quality of care and medical barriers at the accessible health care services. Good quality of care at health care and FP services has been shown to affect knowledge, health and contraceptive use among patients visiting the service unit. It also contributes to attracting patients from far distant places who are willing to travel in order to receive these better services. The nature of all the different quality of care and medical barriers to family planning service delivery points and contraceptive use for the poor, indigenous communities in Guatemala remains unclear. It has been increasingly suggested but rarely established that the relative deprivation and lagging behind of the indigenous population is partly explained by the discrimination indigenous peoples experience at health care services. The previous survey in 2001 had identified the governmental health centre (GHC) as the main health care and FP provider for the indigenous communities. Chapter Four unravels the access, quality of care and medical barriers FP clients face when consulting the FP services at the GHC in Jocotán, and identified provider bias in the testimonies of FP service providers in Jocotán.

Chapter Four's added value lies in the use of a multitude of data sources, methods and approaches when identifying quality of care issues faced by the different indigenous communities in and around Jocotán and the presence of provider bias from the clients', community and providers' perspectives. The use of certain interview techniques has proven useful in the identification of provider bias affecting other aspects of quality of care and contradictions between and among providers in the application of eligibility criteria and norms and guidelines of the Reproductive Health Programme.

1.3.2 Data, methods and main results

A mixed-methods approach was used in order to capture the different dimensions and components of access, quality of care, medical barriers and provider bias. Several research interview techniques were used: exit interviews with a random sample of patients and with all FP clients at the GHC, in-depth interviews with governmental and private (APROFAM providers, private clinic, private doctor and pharmacist) FP service providers, focus-group discussions with men and women from the outskirts of the town of Jocotán, observations in the waiting room during opening hours of the GHC and an inventory of the seven FP service delivery points in Jocotán. A total of 269 exit interviews with general health care patients, 66 exit interviews with FP clients, 19 interviews with FP providers and four focus-group discussions with community members were conducted. Observational data were collected via a logbook. In addition, maps and documentation of the local health structures were used as documentary evidence. The data from the in-depth interviews, focus-groups and observations was

analysed using Atlas-TI. For the thematic analysis, the pre-existing quality of care issues identified in the Bruce-Jain framework, aspects of access and medical barriers and/or new subcategories emerging from the data were used to categorise issues and themes.

The study found that a wide range of access barriers to health care services continue to affect the indigenous communities in the Ch'orti area, in particular the people from the *aldeas*. Quality-of-care issues affected all patients and FP clients consulting the GHC. Issues such as long waiting times, limited information on alternative FP methods, supply points and side effects, inconsistencies in FP recommendations, poor knowledge of contraindications, use of eligibility barriers and wrong interpretations of FP guidelines emerged from the data and highlight an urgent need for FP training, uniform dissemination of information on FP guidelines and supervision by directing staff. The lack of prioritisation of FP services at the governmental and policy level is conveyed to health care workers. Primary health care issues and preventing infant and maternal morbidity and mortality are considered more urgent and prioritised in terms of use of resources. In-depth interviews with service providers indicated the existence of a wider notion of provider bias than suggested in the Bruce-Jain framework, among governmental as well as private providers. In particular, the combination of a structured and semi-structured interview allowed the identification of contradictions between and among FP service providers. Cultural bias towards indigenous clients was apparent from the exit interviews with patients and among certain providers contributing to the

assumption that indigenous clients might indeed be subject to some form of racial discrimination at health care and FP services in the Ch'orti area.

1.3.3 *Limitations of the study*

Methodologically, interviews have a number of drawbacks, even more so when performed under restricting conditions in terms of time and personnel resources. The inherent subjectivity of interviews might introduce several forms of bias. Interviewees want to rush through the interview in order to get home or back to work. Questions related to the consultations afterwards tend to be positively biased and be affected by recall bias. The author (interviewer) also might have been positively biased towards the indigenous people. In order to measure quality of care received by the clients, client-provider interactions should have been observed. Ideally the typologies and classification of themes and concepts should have been repeated in order to see whether a different researcher would have drawn similar conclusions.

This study is limited to Jocotán and the FP service delivery points available in this town, focussing on services at the GHC. No exit interviews were performed at the private FP service delivery points or with patients exiting the consultations in the *aldeas* so that limited information was available on these services and comparison between FP services was impossible. The number of FP clients exiting the GHC during the study period was insufficient to obtain statistically significant differences in the quality of care as received by clients from the *aldeas* as opposed to clients from the town or between clients of

different ethnic groups. A longer study period would have been required in order to obtain a bigger sample of FP clients.

Finally, the results related to provider bias affecting other aspects of access and quality-of-care are easier to generalise than the findings on cultural bias or discrimination towards indigenous clients. Discriminatory attitudes are often very individual and should be investigated with psychological research instruments. One could argue that, because the Ch'orti area is characterised by such a mixture of ethnic groups, discrimination and ethnic segregation are more marked than in areas where the population is more homogeneous.

2. Further research

This study has used a multitude of data, techniques and a quantitative as well as qualitative approach, stimulating research possibilities in both domains. In the next paragraphs, the research questions and possibilities generated by this thesis will be discussed. Some of the possible research topics are to be undertaken by the author in the near future. The analysis in Chapter Two on fertility trends falls short of a detailed analysis of fertility determinants at the individual level and determining the impact of ethnicity. The survey and census data of 2002 offer potential for an analysis using multilevel modelling by drawing the variables at the community (*municipio*) level from the census data and the variables at the individual level from the survey. The 2002 survey has the additional advantage that it uses self-identification as a way to classify ethnic groups.

In order better to understand what drives the high fertility in Guatemala and explain the very slow progress of the fertility transition, further investigating the potential explanation of cultural factors and ethnic segregation and the relevance of the cultural version of the fertility transition theory, remains a challenge. It has been previously demonstrated that ethnicity, through cultural factors, remains an important determinant of reproductive behaviour. It has proven difficult, if not impossible, to demonstrate the independent effect of ethnic *segregation*. Research on social networking in Guatemala and whether social networks transcend ethnic barriers could clarify this. From the observations made in Jocotán, few people from the town befriended the people from the *aldeas*. It would be interesting to study the extent of social networking and the content of interaction between people from the town and people from the *aldeas*, creating potential channels and exposure for people from the *aldeas* to new and more modern reproductive ideas. However, demonstrating cultural influences has proven difficult and studies have at most been able to demonstrate the importance of certain cultural indicators such as levels of female autonomy, number of contacts outside of the community, and exposure to new ideas through the media in determining reproductive outcomes (Cleland and Wilson, 1987; Glei and Goldman, 2000; Lesthaeghe and Vanderhoeft, 1998; Madhavan et al., 2003).

It is clear that Guatemala's population is particularly segregated compared to the rest of Latin America because it is marked by social, economic and political but also ethnic divisions contributing to the relative socio-economic deprivation of the indigenous versus the non-indigenous people. To what extent

these divisions also prevent modern ideas and behaviour to spread among the indigenous people, remains to be measured and demonstrated. It would be useful to extend the comparative study between different Latin American countries and in particular with Honduras, also characterised by high fertility but less strong ethnic but rather socio-economic divisions.

The study on ethnic differences in use of FP and modern pregnancy care focuses on the town of Jocotán and was mainly aimed at highlighting the ethnic diversity in reproductive behaviour within a town. No detailed contraceptive history was available for the interviewed mothers. It would be interesting to identify patterns in uptake of contraception, continued use and contraceptive spacing and stopping behaviour in order to detect whether *ladino* women are not only more likely to use contraception, but also to use it more continuously and consistently as compared to the indigenous women. In establishing contraceptive histories, a more detailed picture of barriers to continued use of contraception could be identified for the different ethnic groups.

The indigenous people living in this town are living in better socio-economic conditions, have a higher educational level and are more exposed to the culture of the town compared to people still living in the *aldeas*. The levels of contraceptive use and modern pregnancy care reflect a much better reproductive health scenario than what one can expect in the *aldeas* and the disparities between the town and the *aldeas* are expected to be very large. In fact, based on the information available from the in-depth interviews with ambulant doctors and the number of FP clients coming to the GHC during the study period in 2004,

still very few women from the *aldeas* were using contraception at that time. Due to limited resources, most data were collected in Jocotán town; the most remote *aldeas* could not be reached to collect more recent data. More research and a large-scale representative household survey is needed in order to measure reproductive behaviour and health in the *aldeas*. Data on infant mortality, currently seriously under-reported, need to be collected in order to identify whether levels remain too high for fertility to decline. The survey could include detailed questions on socio-economic indicators and exposure to contact with the people from the town. Finally, the difficulties encountered during the fieldwork, stressed the importance of careful wording and repeating the questions related to natural FP methods and knowledge, in particular when interviewing illiterate women from the *aldeas*.

Chapter Four investigated the sensitive issue of providers' bias and attitudes towards indigenous patients and clients as opposed to non-indigenous patients or clients. Bias in service delivery introduced by providers unnecessarily further reduces the quality of care received by clients and patients. It will be crucial to determine whether provider bias in its broader notion is prevalent at a national level. Also and more importantly, whether it is mainly present at governmental services on which indigenous people highly depend. Since provider bias can not only be attributed to the individual provider, research should take into account structural and institutional factors (such as levels of income of the providers, presence of supervision and incentives) fuelling provider bias.

Even though the in-depth interviews proved to be useful instruments in order to tease out contradictions between and within providers, more powerful psychological instruments such as attitudinal scales could be used. Interview techniques using Likert scaling could be useful in order to measure provider's attitudes towards certain groups of patients. However, in order to construct the Likert scale, a large group of Guatemala service providers would be needed in order to test the scale.

Finally, even though several access, quality of care and medical barriers have been identified for the people from the *aldeas* through indirect data sources, no data were collected in the *aldeas* to determine the specific barriers *aldea* people face. Data need to be collected in the *aldeas* and among the people who represent the vast majority of the population in the *municipio* of Jocotán and who represent the Ch'orti.

3. Policy implications

International organisations and governments have long stressed and prioritised slowing population growth in order to allow socio-economic development in the least developed regions in the world. As the subsequent successes of steep declines in fertility and increases in contraceptive use have followed, even in certain African countries, seemingly more urgent matters have drawn the attention of the international community. The International Conference on Population and Development in Cairo in 1994, put emphasis on eradicating maternal and child mortality, gender equality and reproductive health, making FP

part of the package to which women are entitled by human right. The Millennium and Development Goals decided in New York in 2000 stressed the importance of eradicating poverty, hunger, disease and illiteracy, particularly among women, and environmental issues in the world. Even though both international conferences have contributed to the acceptance of FP and were indirectly beneficial to reproductive health (Guengant and Rafalimanana, 2005), FP as a health policy was not explicitly mentioned among their Programme of Action (United Nations, 1995), goals and targets (United Nations, 2000) and has stayed in the background. This fact is increasingly recognised by academics working for or in developing countries and already strongly felt by developing countries programme managers, community health workers and local private and governmental organisations and donors (Guengant and Rafalimanana, 2005).

Guatemala, in terms of its reproductive health indicators and stage of the demographic transition, has more similarities with African countries than with most of the countries in modern Latin America. Guatemala is still marked by social and cultural factors that inhibit women from accessing health care services, limited resources in terms of financial support and personnel in order to meet the health care needs of its population, limited access to health and educational services in the rural areas and lack of educational and information campaigns among its predominantly illiterate indigenous population. As in many other parts of the world, the demographic transition in Latin America happens at very different paces across countries. This study has highlighted that Guatemala's fertility transition still makes slow progress, that supplies of FP are irregular and methods options are still lacking and that the gap between different

population groups in terms of their reproductive behaviour seems to widen. More importantly, the government, influenced by the international community's fading interest for FP, fails to prioritise the efficient functioning of its Reproductive Health Programme and safe and effective FP service delivery.

Guatemala's population growth is starkly felt in the rural areas where the majority of the indigenous population lives. Most arable land in Guatemala is in the hands of a small minority of *ladino* owners, the majority of the indigenous people are landless labourers and millions of indigenous people who own a tiny plot of land are forced to intensify production or clear the forest. The population in the *aldeas* increases every year, and erosion and landslides further deteriorate the quantity and quality of available arable land. Poor indigenous people do feel the socio-economic pressures and strains on family resources of high fertility, contrary to assumptions by some scholars that the indigenous community and family system benefits from a large number of children. If current levels of contraceptive use among Guatemala's population of reproductive age are to increase, a very strong governmental will and determination is needed in order to tackle current problems in the delivery of its Reproductive Health Programme. If, fertility levels are to come down the Guatemalan government will have to look into improving and expanding the coverage of its FP programme while focussing on spacing as well as limiting contraceptive methods, offering the methods of preference and targeting the rural indigenous populations where the impact on fertility levels can potentially be greatest.

The question could be raised whether intensive FP programmes are justified in view of the other reproductive health priorities prevailing among the poor indigenous populations. Many of the least developed countries and their health care workers are faced with much more urgent primary health care issues such as high levels of infant and maternal morbidity and mortality. However, FP has a direct beneficial effect on these indicators by preventing unwanted and ill-timed pregnancies. Also, in rural Guatemala women and men see the pressure of growing numbers of people on the limited resources and the benefit of raising fewer children offering their offspring better chances. Other examples in the rest of the world and the socio-economic characteristics of Depo-Provera users in the *aldeas* show that, despite high levels of illiteracy, limited socio-economic development and cultural and religious objections in the society, individual couples of reproductive age can be encouraged to take up FP.

The current evolution of FP service delivery observed in Jocotán, of irregular supplies, expected contraction of the funding of Depo-Provera and the uncertainties about the feasibility of the provision of alternative methods such as the IUD option, are of real concern for the future success of the Reproductive Health Programme. If recent fertility declines could be ascribed to the Reproductive Health Programme then priority has to be given to sustain current users, assure supply of the popular FP method Depo-Provera or offer alternative methods and stimulate FP use for limiting. Also, many of the quality of care issues identified in this study could be addressed. The more experienced personnel should be taking the responsibility of ambulant doctors. Young doctors could be trained in order to attend clients in a culturally sensitive way;

supervisory staff should be present to assure non-judgemental, non-discriminatory interpersonal communications and respect of minimal standards of hygiene and privacy. Competency-based training and regularly monitoring provider's skills, mechanisms to reinforce FP program guidelines and standards could greatly improve quality of care without requiring major financial investments. Programmes should focus on the most vulnerable and needy population and age groups, in particular the young people and couples in the poorest sectors of the society. Existing FP service delivery points, such as pharmacies, could be involved in governmental service delivery; the limited financial resources should be allocated to give staff incentives in order to keep them motivated and perform well and sustain the continued supply of drugs and FP methods.

4. Concluding remarks

Previous FP policies successes in other parts of the world, in particular in Asia, can be mainly ascribed to strong governmental commitment (Guengant and Rafalimanana, 2005). In Latin America, governments have long remained passive and strong opposition was exerted from the Catholic Church against FP policies. Many women had to rely on public but predominantly private services of national and international organisations and donors whom have managed to get FP accepted among a large proportion of the population. The Guatemalan government has only very recently shown its commitment towards FP policies through the introduction of the Reproductive Health Programme in 2001. However, if fertility levels are to come down and the increasing unmet need for

reproductive health care services are to be met, its commitment will have to go further than legalising and institutionalising FP as parts of maternal health care services and financing half of the costs of FP methods. In aiming to achieve these challenges, the government will have to take into account the demographic diversity of the Guatemalan population and designing and implementing strategies meeting the needs of specific groups and the whole population.

Commitment also has to come from the international community to raise the issues many of the countries, like Guatemala, are faced with. Better governmental health care and universal and equal access for all gender and age groups to education are primary requirements for human development and socio-economic progress. The extremely unequal distribution of the land is a particular feature of Guatemala and is at the base of sharp socio-economic divisions. The international community has a duty to raise this injustice.

Finally, our intention was to formulate ways to improve FP services in Jocotán. In the final stage of this research the author plans another fieldtrip to Jocotán. The results of this study will be presented and discussed with staff at the GHC aiming to provide constructive feedback to stakeholders and to pursue the goal of getting research into practise.

References

- Cleland J. and Wilson C. (1987). Demand theories of the fertility transition: an iconoclastic view. *Population Studies* 41, 5-30.
- Glei D.A. and Goldman N. (2000). Understanding ethnic variation in pregnancy-related care in rural Guatemala. *Ethnicity and Health* 5(1), 5-22.
- Guengant, J.-P. and Rafalimanana, H. (2005) The Cairo approach: Making reproductive health and family planning programmes more acceptable or embracing too much? Paper presented for the XXVth IUSSP International Population Conference, 18-23rd of July 2005.
- Lesthaeghe, R. and Vanderhoeft, C. (1998). Ready, willing, able: A conceptualization of transitions to new behavioural forms. Unpublished paper presented at the workshop on social processes underlying fertility change in developing countries, committee on population, January 29-30. Inter-University Programme in Demography. Brussels, Belgium: Vrije Universiteit Brussel.
- Madhavan S., Adams A. and Simon D. (2003). Women's networks and the social world of fertility behaviour. *International Family Planning Perspectives* 29(2), 58-68.
- Population Reference Bureau (2005). World population data sheet 2005. http://www.prb.org/Template.cfm?Section=PRB&template=/Content/ContentGroups/Datasheets/2005_World_Population_Data_Sheet.htm. Accessed on: 8-9-2005.
- United Nations (1995). Report of the International Conference on Population and Development. Report number: E.95.XIII.18. Cairo, 5-13 September 1994.
- United Nations (2000). Resolution adopted by the General Assembly during its fifty-fifth session. United Nations Millenium Declaration. Report number: A/RES/55/2. New York: United Nations.

Annexes

Short description of the content of the Annexes in Spanish

Annexe II.1

This questionnaire was undertaken with mothers between 15 and 49 years of age who were or had been married or living in union. It covers questions on: socio-demographic characteristics of the interviewee and the members of the household, socio-economic and cultural, characteristics of the interviewee, questions related to general health of the children in the household, pregnancy related care and obstetric data, place of residence of all the children, and extensive questions on knowledge and use of family planning (FP).

Annexe II.2

This topic guide is directed to FP service providers and covers questions related to: type of FP service, personal data of the provider, the type of FP information and FP services, their knowledge of FP and attempts to investigate whether service provider express a certain attitude towards clients from different ethnic and social background.

Annexe III.1

This letter was addressed to service providers at the governmental health centre (GHC) in Jocotán. It informs the providers about the broad objectives of the study and its relevance for the quality of care of the reproductive health services delivered at this unit. It asks the providers for their collaboration during the four weeks study period and also provides a referral sheet for the general health care and FP clients that attend the GHC.

Annexe III.2

This questionnaire was administered to general health care patients leaving the GHC. It incorporates questions on: the level of satisfaction among clients about their visit to the GHC, access to the GHC, knowledge of FP and socio-demographic indicators of the interviewee.

Annexe III.3

This questionnaire was administered to predominantly female FP clients leaving the governmental health centre. The questionnaire starts by identifying the type of FP client. It incorporates questions on level of satisfaction among the FP clients about their visit and access to the GHC. It distinguishes questions according to the type of FP clients. For clients who only came for information, the questionnaire focuses on the knowledge of the clients after the visit to the GHC. Among new acceptors and re-supply clients without problems (who did not experience side effects), the questionnaire verifies their knowledge of the prescribed method, previous use of FP and preferred FP method. For re-supply clients with problems specific questions were raised about the level of awareness among those clients about the experienced side effects. Specific questions are asked to users according to their used method: the pill, the IUD, the injection, the condom and sterilisation. Finally, the same socio-demographic questions as the ones for the general health care patients (see Annexe III.2) were raised.

Annexe III.4

The interviews with the FP service providers are split in two parts. The first part of the interview raises questions related to the providers' socio-demographic characteristics, their professional experience and training in FP and questions related to medical barriers. The semi-structured in-depth interview raises question on the use of FP in the Ch'orti area, the delivery of FP information and services, and questions on the providers' perceptions of the reproductive health needs of the different communities in the Ch'orti area.

Annexe III.5

The discussion guide starts with the introduction of all the participants in the focus groups followed by questions related to the community's use and perceptions of the quality of care at general and reproductive health care services. It also enquires about use and attitudes towards FP in the community in general.

Annex I

Age specific fertility rates based on exact exposure, figures for the whole of Guatemala, urban and rural areas

Table 1

Age specific fertility rates for four-year periods from the Demographic and Health surveys of 1987, 1995, 1998-99 and the 2002 National Maternal and Child Health Survey: whole of Guatemala

Age group	Period								
	1968-71	1972-75	1976-79	1980-83	1984-87	1988-91	1992-95	1996-99	2000-02
15-19									
2002	0.084	0.128	0.129	0.150	0.122	0.158	0.133	0.127	0.103
1998-99	0.113	0.144	0.151	0.141	0.120	0.139	0.133	0.115	
1995	0.128	0.145	0.158	0.157	0.146	0.142	0.127		
1987	0.154	0.168	0.161	0.167	0.137				
20-24									
2002		0.293	0.281	0.292	0.270	0.265	0.270	0.247	0.222
1998-99	0.249	0.332	0.283	0.266	0.283	0.276	0.274	0.276	
1995	0.276	0.286	0.285	0.293	0.279	0.270	0.268		
1987	0.279	0.284	0.304	0.302	0.271				
25-29									
2002			0.355	0.265	0.268	0.256	0.247	0.213	0.214
1998-99		0.289	0.292	0.318	0.281	0.276	0.233	0.235	
1995	0.329	0.286	0.284	0.286	0.252	0.253	0.244		
1987	0.312	0.303	0.283	0.296	0.262				
30-34									
2002					0.220	0.194	0.187	0.180	0.146
1998-99			0.162	0.218	0.205	0.213	0.187	0.180	
1995		0.235	0.255	0.240	0.209	0.196	0.196		
1987		0.270	0.258	0.252	0.206				
35-39									
2002						0.154	0.140	0.124	0.104
1998-99					0.173	0.130	0.147	0.130	
1995				0.205	0.153	0.146	0.135		
1987				0.185	0.152				
40-44									
2002							0.083	0.057	0.040
1998-99						0.079	0.060	0.063	
1995					0.111	0.073	0.055		
1987					0.081				
45-49									
2002								0.019	0.011
1998-99							0.000	0.006	
1995						0.013	0.012		
1987									

Sources: Guatemalan DHSs 1987; 1995 and 1998-99 and the 2002 NMCHS

Note: In this table, the Petén region was excluded from the 1998-99 DHS and the 2002 NMCHS as this region was not included in the 1987 and 1995 DHSs.

Table 2

Age specific fertility rates for four-year periods from the DHSs of 1987, 1995, 1998-99 and the NMCHS 2002: urban areas

Age group	Period								
	1968-71	1972-75	1976-79	1980-83	1984-87	1988-91	1992-95	1996-99	2000-02
15-19									
2002	0.066	0.131	0.107	0.108	0.096	0.125	0.109	0.091	0.077
1998-99	0.078	0.123	0.121	0.118	0.091	0.117	0.102	0.086	
1995	0.100	0.117	0.141	0.100	0.110	0.103	0.098		
1987	0.119	0.131	0.126	0.119	0.093				
20-24									
2002		0.290	0.251	0.248	0.231	0.212	0.212	0.204	0.172
1998-99		0.316	0.274	0.219	0.225	0.250	0.232	0.258	
1995	0.210	0.236	0.251	0.247	0.226	0.225	0.232		
1987	0.247	0.235	0.263	0.247	0.212				
25-29									
2002				0.243	0.221	0.226	0.194	0.184	0.183
1998-99			0.256	0.304	0.235	0.241	0.203	0.206	
1995		0.204	0.238	0.236	0.197	0.194	0.196		
1987	0.263	0.243	0.225	0.238	0.210				
30-34									
2002					0.168	0.132	0.141	0.151	0.099
1998-99				0.179	0.150	0.170	0.123	0.145	
1995			0.177	0.173	0.157	0.134	0.142		
1987			0.208	0.194	0.149				
35-39									
2002						0.117	0.099	0.091	0.073
1998-99					0.170	0.086	0.101	0.088	
1995				0.145	0.091	0.099	0.083		
1987				0.143	0.086				
40-44									
2002							0.040	0.027	0.033
1998-99							0.048	0.038	
1995						0.036	0.029		
1987					0.053				
45-49									
2002									0.012
1998-99								0.001	
1995							0.001		
1987									

Notes & Sources: See Table 1

Table 3

Age specific fertility rates for four-year periods from the DHSs of 1987, 1995, 1998-99 and the NMCHS 2002: rural areas

Age group	Period								
	1968-71	1972-75	1976-79	1980-83	1984-87	1988-91	1992-95	1996-99	2000-02
15-19									
2002	0.101	0.126	0.145	0.186	0.144	0.184	0.150	0.151	0.121
1998-99	0.142	0.162	0.175	0.161	0.148	0.157	0.162	0.136	
1995	0.150	0.166	0.173	0.199	0.170	0.170	0.149		
1987	0.174	0.189	0.182	0.195	0.162				
20-24									
2002		0.297	0.305	0.324	0.302	0.310	0.314	0.278	0.258
1998-99	0.167	0.346	0.291	0.305	0.328	0.303	0.308	0.293	
1995	0.334	0.327	0.310	0.332	0.319	0.302	0.292		
1987	0.298	0.312	0.327	0.334	0.306				
25-29									
2002			0.202	0.284	0.302	0.280	0.293	0.236	0.239
1998-99			0.320	0.329	0.318	0.302	0.261	0.260	
1995		0.362	0.322	0.323	0.298	0.299	0.278		
1987	0.351	0.339	0.316	0.328	0.292				
30-34									
2002					0.268	0.239	0.223	0.205	0.185
1998-99				0.249	0.251	0.248	0.236	0.210	
1995			0.328	0.299	0.248	0.246	0.238		
1987			0.289	0.286	0.238				
35-39									
2002						0.191	0.169	0.150	0.132
1998-99					0.176	0.167	0.184	0.163	
1995				0.261	0.207	0.184	0.172		
1987				0.211	0.189				
40-44									
2002							0.128	0.081	0.045
1998-99						0.062	0.070	0.083	
1995						0.106	0.075		
1987					0.102				
45-49									
2002								0.017	0.011
1998-99								0.010	
1995							0.022		
1987									

Notes & Sources: See Table 1

Annex II.1

Questionnaire for the household survey in Jocotán, 2001

Enquesta con madres entre 15 y 49 años que estan o estuvieron casadas o en union:

Yo soy _____ y estoy asistiendo a Sofie De Broe, un estudiante de la Universidad de Southampton (Inglaterra) y queriamos hacer un estudio sobre el area de Jocotán. Ella esta viviendo con las hermanas de la Anunciación y ellas saben que esta haciendo este estudio. Le aseguro que todo lo que usted me diga sera confidencial y quedara entre nosotros dos. Ninguna de la información obtenida contendrá su nombre, todo se publicará anónimo. Este estudio es una continuación del estudio hecho en 1994 en Tesoro, Pacrén y Jocotán. Los resultados de ese estudio mostraron que las mujeres indígenas tenían menos educación y vivían en peores condiciones socio-economicas que las mujeres de Jocotán. El estudio también muestra que las mujeres de las *aldeas* normalmente tienen más hijos y casi todas dan a luz en su casa de palma. Este estudio pretende ver en mayor profundidad como la gente de Jocotán vive, que son sus condiciones de salud, cuántos hijos tienen y si conocen algo sobre planificación familiar. En esta entrevista no hay respuestas correctas o falsas, sólo quisiera saber su opinión. Si esta de acuerdo, empezemos con la entrevista...

I. Identificación

- 1) Nombre de la entrevistada: _____
- 2) Fecha de nacimiento: _____ edad: _____
- 3) Desde cuantos años usted vive en Jocotan? _____
- 4) Nombre del pueblo o *aldea* donde usted vivia antes?: _____
- 5) Nombre del pueblo o *aldea* donde nació: _____

RESIDENCIA					EDUCACIÓN				
	Nombre de los habitantes de la Casa	Relación con el jefe de la casa?	El/ella Vive Aquí? (SI/NO)	Dónde Vive?	Sexo (M/F)	Fecha de nacimiento	Puede leer y escribir? (SI/NO)	Nivel educativo mas alto	Todavia asiste a la escuela? (SI/NO)
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

- 6) Usted esta casada o unida ahora?: En union / Casada / No esta en union (CONTINUA CON ***)
- ***a) Tiene usted una persona con la cual mantiene relaciones sexuales? Si / No
- ***b) Ha estado usted alguna vez casada o unida con un hombre?: Si, casada antes /Si, unida antes /No
- ***c) Cual es su estado civil actual?: Viuda / Separada / Divorciada
- 7) Su esposo/compañero vive ahora con usted o vive en algun otra parte? _____
- 8) Ha estado usted casada o unida solamente una vez o mas de una vez?: _____
- 9) En que mes y año empezo a vivir con su (primer) esposo/compañero?:Mes: _____ Año: _____

II. Caracteristicas socio-económicas

(INDICAR CODIGO CORRESPONDIENTE A RESPUESTA)

10.	La vivienda es	<ul style="list-style-type: none"> ● Prestada ● Alquilada ● Propia 	<div>1</div> <div>2</div> <div>3</div>
11.	Sitio de captación de agua	<ul style="list-style-type: none"> ● Río ● Québrada ● Ojo de agua ● Chorro público ● Chorro privada 	<div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div>
12.	Letrinas	<ul style="list-style-type: none"> ● Aire libre ● Entieran ● Hoyo ● Inodoro lavable 	<div>1</div> <div>2</div> <div>3</div> <div>4</div>
13.	Luz	<ul style="list-style-type: none"> ● Candela ● Gaz-candil ocote ● Eléctrica 	<div>1</div> <div>2</div> <div>3</div>
14.	Cuántos cuartos hay en la casa?	(número de cuartos)	
15.	Cocinan donde duermen?		Sí / No
16.	Basura	<ul style="list-style-type: none"> ● Tirar cerca ● Tirar lejos ● Quemar ● Depósito 	<div>1</div> <div>2</div> <div>3</div> <div>4</div>
17.	Animales domésticos	<ul style="list-style-type: none"> ● Pollo ● Coche ● Vaca 	<div>Sí / No</div> <div>Sí / No</div> <div>Sí / No</div>

- Otros

- Material de la vivienda: OBSERVACIÓN

- | | | |
|-------------|-------------|---|
| 18. Paredes | • Palma | 1 |
| | • Adobe | 2 |
| | • Bajareque | 3 |
| | • Bloque | 4 |

- | | | |
|-----------|------------|---|
| 19. Techo | • Palma | 1 |
| | • Teja | 2 |
| | • Lamina | 3 |
| | • Fundido | 4 |
| | • Ladrillo | 5 |

- | | | |
|----------|--------------------|---|
| 20. Piso | • Tierra | 1 |
| | • Torta de cemento | 2 |
| | • Ladrillo | 3 |

-
- | | | |
|--------------|--------------|---|
| 21. Religión | • Ninguna | 1 |
| | • Católica | 2 |
| | • Evangélica | 3 |
| | • Maya? | 4 |
| | • Otra? | 5 |

-
- | | | |
|---------------|---|---|
| 22. Profesión | • En la casa | 1 |
| | • Trabajo fuera de la casa (especificar: negocio, vender algún producto): | 2 |

-
- | | |
|-----------------------|---|
| • Otro (especificar): | 3 |
|-----------------------|---|

23. Ocupación de su marido o compañero:

24. Usted o su marido es dueño de un terreno (de tierra)? Sí / No

III. Cultural

25. Usted usa traje típico?

Sí / No
26. Qué idiomas habla usted (INDICAR TODOS)?

Chortí / Español / Inglés
- Que idioma usted habla más regularmente?

Chortí / Español
- SI ES PERSONA INDIGENA:
Cuando usted vivía en su *aldea*, usted hablaba:

Chortí / Español
- Usted habla y entiende bien el Español?

Sí / No / Más o menos
27. Usted se considera *Ladina* o indígena?

IV. Salud

28. En caso de enfermedad, usted generalmente consulta:
(LEER LISTADO)

● Promotor de salud

Sí / No

● Curandero

Sí / No

● Las hermanas

Sí / No

● Centro de salud

Sí / No

● Médico privado

Sí / No

● Remedios caseros?

Sí / No

Cuáles usa usted?

● Otro?

Sí / No

Cual?
29. Usted consume? (INDICAR)

Café ☐

Pollo ☐

Arroz ☐

Tortilla ☐

Huevo ☐

Fruta ☐

Frijoles ☐

Pescado ☐

Verdura ☐
30. Usted come sobre todo tortilla y frijoles?

Sí / No

31.	Sus niños están vacunados?	Sí / No
	Contra el tétanos?	Sí / No
	Contra la polio?	Sí / No
	Otras enfermedades?	Sí / No
	Cuales?	
32.	Tienen su tarjeta de vacunación?	Sí / No
33.	Sus niños han estado hospitalizados durante el último mes?	Sí / No
	Por qué razón?	
34.	Durante cuántos meses usted dió SOLO pecho al último hijo?	
35.	Durante cuántos meses dio pecho y otros alimentos tales como la leche artificial, atoles o jugos de fruta al ultimo hijo:	
36.	Ha recibido o buscado la visita de algún médico ambulatorio, guardián de salud, promotor de salud, comadrona u otra persona para ayurdarle a controlar su embarazo (control prenatal)?	Sí / No (CONTINUA CON ***)
	Cuántas veces?	
	A dónde?	
	Quién la atendio?	
	***Por qué no? (servicio cerrado; no habia personal; esperar mucho; no tenía dinero; demasiado lejos; no es necesario; costumbre; falta de confianza?)	
37.	Usted ha tenido consultas post-natales después de su último embarazo (consultas para ver que todo estaba bien con la mamá y el bebe)?	Sí / No (CONTINUA CON ***)
	Cuántas veces?	
	A dónde?	
	Quién la atendio?	
	***Por qué no? (servicio cerrado; no habia personal; esperar mucho; no tenía dinero; demasiado lejos; no es necesario; costumbre; falta de confianza?)	

V. Datos gineco-obstétricos

38.

Cuantos embarazos tuvo usted (también los que terminaron en abortos) ?_

Cuantos partos tuvo usted (nacidos vivos y muertos) ? _____

Cuantos abortos tuvo usted (terminación de embarazo antes de 9 meses) ?__

Cuantos hijos muertos tuvo usted ? _____

Cuantos hijos vivos tiene usted ? _____

Cuantos hijos de crianza tiene usted ? _____

39. Listado de los niños (vivos y muertos) que usted ha tenido:

Nombre del niño	Sexo (M/F)	Fecha de nacimiento	Sigue vivo? (SI/NO)	Vive aqui? (SI/NO)	Donde vive?	En que edad murió? En días si<1mes En meses si<2años	Tuvo usted un aborto despues de este hijo? (SI/NO)
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

40. Usted está embarazada actualmente? Sí / No

41. Dónde tuvo su último parto?:

- En la casa 1

- En el hospital 2

- Otro lugar: 3

42. Durante el parto usted tuvo ayuda de:

- Nadie 1

- Su esposo 2

- Mamá 3

- Comadrona 4

- Hermana 5

- Enfermera 6

- Doctor 7

43. Cuando quedó embarazada la ultima vez, queria usted quedar embarazada en ese momento? Sí / No

VI. Conocimiento y uso de planificación familiar

44.

Entre una regla y otra, sabe usted que hay días en los cuales una mujer tiene más riesgo de quedar embarazada?:

Si / No / No sabe
45.

En cuales días entre una regla y otra, cree usted que la mujer tiene mas posibilidad de quedar embarazada?:
46.

Cree que la lactancia materna afecta la posibilidad de quedar embarazada?

Si / No / No sabe
47.

Usted ha escuchado hablar sobre planificación familiar?

Sí / No
48.

Cuáles métodos de planificación familiar usted conoce? (Listar):
49.

Quién le platicó de los métodos:
(LEER LISTADO)

• Nadie

• Amiga o familia

• Por la radio

• Hermanas

• Aprofam

• Farmacia

• Doctor

• Centro de salud

• Escuela

Sí / No

Sí / No

Sí / No

Sí / No

Sí / No

Sí / No

Sí / No

Sí / No

Sí / No
50.

Qué método de planificación familiar usted esta usando ahora para no quedar embarazada?
51.

Cuáles métodos usted ha utilizado en su vida (aunque sea una vez)?:
(LEER LISTADO)

• Condón

• Tabletas vaginales

• Píldora

• Inyección

• DIU

• Norplant

• Esterilización femenina

Quando fue (fecha)?

• Esterilización masculina

Quando fue (fecha)?

Sí / No

Sí / No

Sí / No

Sí / No

Sí / No

Sí / No

Sí / No

Sí / No

Sí / No

51. (sigue)

- Método natural

Qué tipo?
[PEDIR EXPLICACION:
-ritmo?
-retiro durante el acto sexual?
-otro?]

 - Otros:

Cuales?

 - Ninguno (CONTINUA CON***)

Sí / No

Sí / No

Sí / No

*** Por qué usted no usa planificación familiar?:
(INDICAR RAZON DADA ESPONTANEAMENTE CON * Y DESPUES LEER LISTADO)

1. Es porque usted no esta casada o unida?

Sí / No
2. Porque no tiene relaciones sexuales?

Sí / No
3. Es porque usted es menopausica?

Sí / No
4. Es porque usted tiene relaciones sexuales infrecuente?

Sí / No
5. Es porque tiene problemas para quedar embarazada?

Sí / No
6. Es porque está embarazada o acaba de tener un hijo?

Sí / No
7. Es porque está dando pecho?

Sí / No
8. Es porque su esposo generalmente no se encuentra?

Sí / No
9. Es porque quiere mas hijos?

Sí / No
10. Es porque es pecado?

Sí / No
11. Es porque Dios decide los niños que uno tiene?

Sí / No
12. Es porque su esposo no quiere?

Sí / No
13. Es porque es malo para la salud?

Sí / No
14. Es porque usted no sabe sobre planificación familiar?

Sí / No
15. Es porque es caro?

Sí / No
16. Es porque no sabe donde conseguir PF?

Sí / No
17. Otras razones? (Cuales?)

Sí / No

Le gustaría usar un método en el futuro?
Si: Cual?: _____
No: Por qué?: _____

52. Cuántos años tenia cuando usted empezó a usarlos por primera vez?

53. Donde se puede conseguir un método de planificación familiar?

54. Usted ha tenido problemas con algunos métodos?

Sí / No

Qué típo de problemas?
55. Usted ha conversado con su esposo sobre planificación familiar?

Sí / No

Annex II.2

Topic guide of the in-dept interviews with service providers on supply of family planning, Jocotán 2001

INTRODUCTION:

Yo soy Sofie De Broe, estudiante en la Universidad de Southampton (Inglaterra) y queria hacer un estudio sobre el área de Jocotán. Estoy viviendo con las hermanas de la Anunciación y ellas saben que estoy haciendo este estudio. Quisiera hacer la entrevista utilizando una grabadora, asi no tengo que anotar cada frase. Le aseguro que todo lo que usted me diga sera confidential y quedará entre nosotros dos. Ninguna de la información obtenida contendra su nombre, todo se publicará anonimo. Este estudio es una continuación del estudio hecho en 1994 en Tesoro, Pacrén y Jocotán. Los resultados de ese estudio mostraron que las mujeres indígenas tenian menos educación y vivian en peores condiciones socio-economicas que las mujeres de Jocotán. El estudio tambien muestra que las mujeres de las aldeas normalmente tienen mas hijos y casi todas dan a luz en su casa de palma. Este estudio pretende ver en mayor profundidad lo que la gente de Jocotán piensa de la familia y de tener hijos, cuantos hijos quieren y si conocen algo sobre planificación familiar. En esta entrevista no hay respuestas correctas o falsas, solo quisiera saber su opinion. Tambien quiero saber donde se puede obtener los métodos de planificación familiar para tener una idea clara de la oferta de este servicio. Entonces, si usted esta de acuerdo, comencemos con la entrevista....

Date and place of the interview:

Datos personales
Tipo de servicio y responsabilidad
Nombre
Edad (fecha de nacimiento)
Sexo
Estado civil
Pueblo
Religion
Profesion
Nivel educativo

TOPIC GUIDE

A. Information

- 1) Que tipo de información usted da a los clientes interesados en los métodos de planificación familiar ?
 - a. Usted da información sobre los efectos secundarios de los métodos?
 - b. Usted se dirige hacia la mujer, el hombre o la pareja?

- c. Usted habla con las mujeres en privado? (probe: one to one? Contacto personal?)
 - d. Usted tambien les da información sobre planificación cuando no lo piden o cuando vienen por otro problema de salud?
 - e. Usted da información sobre HIV y SIDA?
- 2) Cuanto tiempo usted pasa explicando a las mujeres sobre los métodos?
- 3) Usted da información a los hombres tambien?
- a. Los hombres le piden información sobre planificación familiar?
 - b. Los hombres compran métodos de planificación familiar?
 - c. Se hacen esfuerzos especiales para llegar a los hombres?
- 4) Tambien habla con mujeres indígenas sobre planificación familiar? Usted habla con gente indígena algunas veces?

B. Service

- 5) Que son las horas de apertura de su servicio/clínica?
- 6) Su clínica/centro/pharmacia ofrece servicios de salud materna junto con planificación familiar?
- 7) Cuales son los diferentes servicios de planificación familiar que existen en Jocotán? (Probe: pharmácia; centro de salud; médico; promotor de salud; comadrona; clínica de Aprofam?)
- 8) Que métodos estan disponibles en su centro de servicio? (probe: inyecciones, pastillas anticonceptivas, preservativo, esterilisation, diaphragma, foam, IUD)
- 9) Que métodos se compran lo mas seguido?
- 10) Como se dirige usted hacia los clientes?
- a. Les da información sobre los diferentes métodos que existen?
 - b. Les da un folleto?
 - c. Les pide escuchar la radio?
 - d. Les da tambien información sobre planificación familiar cuando vienen por otro problema de salud?

- e. Usted tambien les aconseja un tipo de método de planificación familiar?
- 11) Las mujeres de las *aldeas* (asi que las mujeres de Jocotán) tambien compran o piden información sobre métodos de planificación familiar?
- a. Usted piensa que ellas entienden para que sirven?
 - b. Usted cree que saben como usarlos?
 - c. Los hombres de las *aldeas* vienen a buscar información o métodos de planificación familiar?
- 12) Cuanto dinero esta implicado en los servicios de planificación familiar?
- a. Hay algun tipo de inversion por parte del gobierno en estos servicios?
 - b. Cuanto cuestan los diferentes métodos de planificación familiar?
 - c. Es caro para la gente?
 - d. Cuanto representa esto del sueldo mensual?
- 13) Usted piensa que hay suficiente oferta para la demanda de planificación familiar? Hay suficiente provision de métodos para la planificación familiar?
- 14) Usted colabora con Aprofam?
- 15) Usted sigue los pacientes que vienen a su servicio/clínica? Usted sabe lo que pasa con los pacientes y el uso de métodos de planificación familiar despues de su visita?
- 16) Hay una sala de espera en su servicio/clínica?

C. Knowledge of service providers

- 17) Que métodos usted conoce (listar)?
- 18) Que métodos usted conoce mejor?
- 19) Como funcionan?
- 20) Cuales son los aspectos negativos y positivos de estos métodos?
- 21) Cuales métodos usted aconsejaria para las mujeres de Jocotán? Porque? Que métodos usted aconsejaria para las mujeres de las *aldeas*? Porque?
- 22) Que dificultades hay para llegar a estas comunidades? Como se pueden resolver estas dificultades?

D. Attitudes of service providers

- 23) Usted ofrece servicios de planificación familiar a todas las mujeres independiente de donde viven? (probe: *ladino* y indígena; mujeres de Jocotán y las *aldeas*)
- 24) Usted piensa que hay una gran necesidad de planificación familiar en las *aldeas*? Y en Jocotán?
- 25) Usted cree que hay una demanda por planificación familiar entre las mujeres indígenas?
- 26) Usted ofrece servicios de planificación familiar diferentes para mujeres jóvenes?
- 27) Usted ofrece información sobre planificación familiar para mujeres que no estan casadas?
- 28) Tiene alguna prejunta que quisiera hacerme?

Otras observaciones

MUCHAS GRACIAS

Annex III.1

Letter and referral sheet directed at the health care providers of the governmental health centre and private family planning service providers, Jocotán 2004

Sofie De Broe
Division of Social Statistics
School of Social Sciences
University of Southampton
Highfield
Southampton
SO17 1BJ
UK
Email: Sofie@socsci.soton.ac.uk
http://www.ecs.soton.ac.uk/~mk1/jocotan/joc_main.html

Mayo, 2004

Estimado doctor, enfermera, enfermera auxiliar, y voluntaria de APROFAM,

Soy un estudiante de la Universidad de Southampton y hace tres años y medio (Septiembre 2001) hice un estudio sobre planificación familiar y salud reproductiva en Jocotán. Este estudio consistió de una muestra (N=175) de mujeres en edad reproductiva en los diferentes barrios de Jocotán y entrevistas con algunos proveedores de planificación familiar. De este estudio siguió que las mujeres de Jocotán que se consideran indígenas siguen usando planificación familiar mucho menos que las mujeres *ladinas*. Esta observación fue muy interesante porque la mayoría de las mujeres tenían acceso a los métodos de planificación familiar (el centro de salud y servicios de APROFAM quedan cerca para todas). Ahora, intento averiguar cuales son las razones detrás de esta observación. El plan de estudio, con su permiso, es el siguiente:

-Entrevistar a los proveedores de planificación familiar sobre:

- Cuales son los cambios desde el programa (2001) de salud reproductiva
- Cuales son sus observaciones sobre las barreras en contra el uso de planificación familiar entre las mujeres indígenas de Jocotán.

-Hacer entrevistas con las mujeres/pacientes que salgan del centro de salud para saber:

- Que piensan ellos de los servicios de salud recibidos
- En que consiste el uso de planificación familiar entre ellas
- Cuales tipos de servicio de planificación familiar estan disponibles y que tan facil los pueden acceder

Mi última intención es de mejorar los servicios de salud reproductiva para Jocotán y sus *aldeas*. Ustedes son los expertos y tienen la experiencia y el conocimiento de las necesidades de las comunidades. Con un poco de experiencia académica, yo intentaré de aclarar más en detalle que son las barreras que los proveedores y los clientes confrontan en la provisión de planificación familiar.

Yo intentare publicar los resultados al nivel internacional, conservando el anonimato. Le agradezco mucho por su participación en este estudio y no deuda en contactar me si usted tiene alguna pregunta o si tiene alguna sugerencia,

Sofie De Broe, candidato de doctorado

<p>Cientes quién vino para:</p> <ul style="list-style-type: none"> - Información sobre planificación familiar (PF) - Prescripción de método PF - Cambio de método de PF - Visita de seguimiento 	<p>➔ Por favor refiere estos clientes a Sofie De Broe</p>
<p>Pacientes quién vino para consultas de salud materno-infantil</p>	<p>➔ Por favor refiere estos pacientes a las entrevistadores</p>

Annex III.2

Exit-interview with patients at the governmental health centre, Jocotán 2004

Nombre de la entrevistadora: _____

Esta encuesta se debe hacer con mujeres entre 15 y 45 años y entre mujeres que no vienen para planificación familiar (PF). Las mujeres deben ser entrevistadas DESPUES de la consulta. Pide por favor a la mujer si ella esta dispuesta a responder algunas preguntas sobre su visita al centro de salud. Es muy importante que la mujer acepte participar en la encuesta antes de iniciar la entrevista.

Hola,
Yo soy.....y trabajo con Sofie De Broe, un estudiante de la Universidad de Southampton en Inglaterra. Somos investigadores independientes del centro de salud y estamos haciendo un estudio sobre salud reproductiva aquí en Jocotán. El objetivo de este estudio es evaluar los servicios de salud en Jocotán y queremos conocer su experiencia de hoy. Quiero hacerle algunas preguntas sobre su visita de hoy y le agradecería mucho si usted me hace el favor de responderlas. No voy a apuntar su nombre y todo lo que usted me diga es confidencial. No tiene ninguna obligación de responder las preguntas que no quiere responder y puede retirarse de la encuesta en cualquier momento. Puedo continuar?

Si el cliente acepta de continuar, pregunta si tiene alguna pregunta para ti y dale una respuesta. Si el cliente no acepta de continuar con la entrevista, dale las gracias y sigue con el cliente siguiente.

Centro de salud Jocotán
Numero del cliente:
Fecha de la entrevista:

Satisfacción del cliente

1. ¿Cuales son las razones por las que vino al centro de salud?	
2. ¿Se siente satisfecha (contenta) o insatisfecha con la visita de hoy al centro de salud?	
1.	Satisfecha (-----Q4)
2.	Insatisfecha
3.	Parcialmente
4.	Otra respuesta:

3. ¿Porqué no se siente satisfecha/contenta con su visita de hoy?	

4. ¿Siente usted que ha recibido la información y los servicios que quería durante la consulta de hoy? (Nota: no preguntar si ya mencionado en Q 3)	
1=	Si
2=	No
3=	Parcialmente
98=	No sabe
99=	No aplicable

5. ¿Siente usted que la consulta con el doctor o la enfermera fue demasiado corta, larga o suficiente? (Nota: no preguntar si ya mencionado en Q 3)	
1=	Demasiado larga
2=	Demasiado corta
3=	Suficiente
98=	No sabe
99=	No aplicable

6. ¿ El doctor o la enfermera que le atendió era hombre o mujer?	
1=	Hombre
2=	Mujer

7. ¿ Prefiere que sea mujer o hombre para los servicios de salud materna?	
1=	Si
2=	No
98=	No sabe

8. ¿Durante la consulta, tenía usted algunas preguntas para el doctor o la enfermera? (Nota: no preguntar si ya mencionado en Q 3)	
1=	Si
2=	No (---- Q10)
98=	No sabe (-----Q10)
99=	No aplicable

9. (Si si) ¿El doctor o la enfermera le dieron la oportunidad y el tiempo de hacer estas preguntas?	
1=	Si
2=	No
98=	No sabe

10. ¿Durante la consulta, el doctor o la enfermera le hizo algunos exámenes?	
1=	Si
2=	No (----Q12)
98=	No sabe (----Q12)

11. (Si si) ¿Durante su visita, el doctor o la enfermera le explicaron el objetivo de los exámenes antes de hacerlos?	
1=	Si
2=	No
98=	No sabe

12. ¿Se sienta segura que nadie pudo escuchar la conversación entre usted y el doctor o la enfermera? (Nota: no preguntar si ya mencionado en Q 3)	
1=	Si
2=	No
98=	No sabe
99=	No aplicable

13. ¿Durante la consulta entendió fácilmente la explicación del doctor o la enfermera o sintió que era difícil entenderlos? (Nota: no preguntar si ya mencionado en Q 3)	
1=	Fácil de entender
2=	Mas o menos
3=	Difícil de entender
98=	No sabe
99=	No aplicable

14. ¿Cuanto tiempo esperó entre su llegada y su consulta?	
1.minutes
98=	No sabe (----Q16)

15. ¿Piensa que el tiempo que espero es razonable o es demasiado largo?	
1=	Razonable
2=	Demasiado largo
98=	No sabe

16. ¿Si una amiga suya necesitara una consulta, recomendaría los servicios del centro de salud o le recomendaría ir a otro centro?	
1=	Este centro (----Q18)
2=	Otro centro
98	No sabe (----Q18)

17. ¿En donde le recomendaría de ir se para servicios de salud?	
1=	Bethania
2=	Doctor privado
3=	Puesto de salud
4=	Centro de salud de Camotan
5=	Otro:
98	No sabe

Facilidad de acceso

18. ¿Las horas de apertura son convenientes para usted?	
1=	Si (-----Q20)
2=	No
98=	No sabe (-----Q20)

19. (Si no) ¿Que horas serian mas convenientes para usted? (Indica uno)	
1=	Temprano por la mañana
2=	En la hora del almuerzo
3=	En la tarde
4=	En la noche
5=	Los fines de semana
6=	Otro
98=	No sabe

20. ¿Cuanto tiempo tardó en llegar al centro de salud?	
1.horas.....minutos
98=	No sabe

21. ¿Como llegó aquí? (Indica todos)	22.¿Cuanto tiempo paso en este medio de transporte?
1=	Caminando
2=	Bus
3=	Bicicleta
4=	Carro
5=	Otro

23. ¿Por lo que usted sabe, que tipo de servicios se provee generalmente en este centro de salud? (No leer las opciones pero pregunta al final: ‘Hay otros?’)	
	<i>Indica si menciona</i>
1. Planificación familiar	
2. Consulta pre-natal	
3. Salud materna	
4. Consulta post-natal	
5. Tratamiento de enfermedades sexualmente transmisibles	
6. Inmunización del niño	
7. Consulta de infertilidad	
8. Terapia de re-hidratación oral	
9. Tratamiento de aborto incompleto	
10. Orientación sobre nutrición	
11. Curación general del cliente	
12. Curación general del niño	
13.Otros:	
98. No sabe	

24. ¿Aparte del centro de salud de Jocotán hay otros servicios de salud cerca de donde usted vive?	
1=	Si
2=	No (-----Q 27)
98=	No sabe (-----Q27)

25. (Si si) ¿Que tipo de servicio de salud es este (<i>Leer opciones, si mas que uno: escoja lo mas cerca</i>)?	
1=	Guardián o promotor de salud
2=	Puesto de salud
3=	Centro de salud de Camotan
4=	Bethania
5=	Otro:
98=	No sabe

26. ¿Cual fue la razón principal por la cual usted NO fue al otro servicio de salud (Q25)? <i>(No leer la lista, solo pregunta la razón principal y indica una)</i>	
1=	Tipo de servicio no disponible
2=	No hay doctor o enfermera
3=	Baja calidad de los servicios
4=	Horas de apertura inconvenientes
5=	Quiere servicio anónimo
6=	Tiene otras razones de llegar al pueblo
7=	Mas caro
8=	Prefiero los proveedores (doctores y enfermeras) de aquí
9=	Otro
98	No sabe

	27. ¿En los últimos 12 meses, cuantas visitas usted ha hecho al centro de salud para...? <i>(Lee 1-4)</i>	28. ¿En los últimos 12 meses, cuantas visitas usted ha hecho a otros servicios de salud para...? <i>(Lee 1-4)</i>
1. Planificación familiar		
2. Salud infantil		
3. Salud materna		
4. Otros		

29. ¿Le quiero preguntar ahora sobre los gastos del centro de salud. Cuanto pagó usted (<i>Leer 1-6</i>)?	
	<i>Indica la cantidad (en Quetzales)</i> <i>98= No sabe</i>
1. Consulta	
2. Medicina	
3. Transporte	
4. Otros	

30. ¿Considera que el total de sus gastos fue muy caro, caro o aceptable?	
1=	Muy caro
2=	Caro
3=	Aceptable
98=	No sabe

31.	Como describiría usted la manera en que el doctor/la enfermera del centro de salud le han tratado hoy? (Leer 1-5)
1.	Muy bien
2.	Bien
3.	Regular
4.	Mal
5.	Muy mal

32.	El doctor o la enfermera la saludaron cuando usted entró en la consulta? (Leer 1-5)
1.	Si
2.	No
3.	Usted saludó
4.	No respuesta/sin opinión

33.	Piensa/opina que los servicios de salud en el centro de salud en general son... (Leer 1-5)?
1.	Muy buenos
2.	Buenos
3.	Regular
4.	Malos
5.	Muy malos
34.	PORQUE?

Conocimiento de planificación familiar (PF)

35. ¿Le quiero preguntar algo sobre tener hijos. Conoce alguna manera o método de PF que una mujer y un hombre pueden usar para evitar el embarazo/tener hijos?		
1=	Si	
2=	No (-----Q40)	

	36. (Si si) ¿Que métodos de PF conoce (No leer pero pregunta al final: ‘algún otro método?’) (Indica si si)	37. (Si mencionado) Donde usted ha escuchado sobre este método de PF?
1. La píldora combinado		
2. T-de-cobre		
3. Inyectables		
4. NORPLANT		
5. Preservativo		
6. Diafragma		
7. Tabletas vaginales		
8. Esterilización femenina		
9. Esterilización masculino		
10. PF natural		
11. Solo pecho		
12. Otro:		

38. ¿El doctor o la enfermera de este centro de salud alguna vez le explicó estos métodos? (Nota: no preguntar si ya mencionado en Q 37)	
1=	Si
2=	No
99=	No aplicable

39. ¿Aprueba o desaprueba usted del uso de un método de PF para evitar o espaciar los embarazos?	
1=	Aprueba
2=	Desaprueba
98=	No sabe/No opinión

40. ¿Le gustaría saber más sobre PF a través del centro de salud?	
1=	Si
2=	No
98=	No sabe

Indicadores socio-demográficos

41. ¿Que edad tiene usted?	
 Años
98=	No sabe
42. ¿Cuál es su estado matrimonial? (Pregunta el estado matrimonial exacto)	
1=	Casado (-----Q 44)
2=	En unión (-----Q 44)
3=	Soltero
4=	Separado/divorciado
5=	Viuda
43. (Si no es casada) ¿Tiene una pareja?	
1=	Si
2=	No
44. ¿Cuantos hijos tiene?	
.....hijos	
45. ¿Quisiera tener (mas) hijos? (Indica uno)	
1=	Si
2=	No (----Q 47)
3=	Depende de mi esposo (----- Q 47)
4=	Si Dios quiere (----- Q 47)
5=	No esta segura (----- Q47)
6=	Otra respuesta:.....
46. (Si si), ¿cuando usted quisiera tener otro hijo? (Indica uno)	
1=	En menos de un año
2=	En un año
3=	Entre un año y dos años
4=	En dos años
5=	En mas de dos años
6=	Otra respuesta:.....
98	No sabe

47. ¿Que idiomas puede entender? (Pregunta al final: ‘ hay otras?’)	
	<i>Indica si mencionado</i>
1. Español	
2. Ch'orti	
3. Ingles	
4. Otro	

48. ¿Hasta que nivel estudio en la escuela? (Indica uno)	
1=	No atendió la escuela-analfabeto
2=	Primaria (1-3 anos)
3=	Primaria (4-6 anos)
4=	Secundaria (7-9 anos)
5=	Secundaria (10-12 anos)
6=	Post-secundaria

49. ¿Cuál es su religión? (Indica uno)	
1=	Protestante
2=	Católico
3=	Muslim
4=	Maya
5=	Ninguno
6=	Otro

50.	¿Se considera....?	1. Indígena	
		2. Ladino	
		3. Mix	

51.	¿Donde vive usted?	Jocotan: 1. San Sebastián 2. Calvario 3. San Lorenzo 4. Mitch 5. Cementerio 6. Cerro Cahui 7. Otro:	
		Nombre de su aldea:	

Muchas gracias por su colaboración!!!

Annex III.3

Exit interviews with family planning clients at the governmental health centre, Jocotán 2004

Buenas tardes. Me llamo Sofie De Broe y soy una investigadora independiente del centro de salud. Soy de la Universidad de Southampton en Inglaterra y estoy haciendo un estudio de planificación familiar (PF) y como mejorar la calidad de los servicios de PF en este centro. Si usted acepta participar en el estudio, le voy hacer unas preguntas sobre los servicios de PF. Estamos interesados en saber lo que usted piensa de los servicios de PF que recibió. No voy a apuntar su nombre y todo lo que me dice es confidencial. Su opinión y experiencias son muy importantes para mi, por esto le pido me cuente sus verdaderas experiencias. Algunas preguntas le pueden parecer un poco delicadas, pero usted tiene derecho a no responderlas o a terminar la entrevista en cualquier momento. La entrevista dura más o menos 15 minutos. Tiene alguna pregunta sobre este estudio? Esta de acuerdo con seguir con la entrevista?

If the client does not agree, thank her and go to the next interview.

¿La razón principal de la visita de hoy según el paciente al principio de la consulta?:

A Cliente nuevo:

1. Información
2. Nuevo aceptor
3. Aceptor de PF (re-empezar)

B. Cliente que ya ha venido antes:

1. Información
2. Provisión de método o repetición de visita (sin problemas)
3. Provisión de método o repetición de visita (con problemas o deseo de cambiar/discontinuar)

Centro de salud Jocotán

Numero del cliente:

Fecha de la entrevista:

Satisfacción del cliente

1. ¿Cual(es) fue/fueron la(s) razón(es) por la(s) que vino hoy a este centro de salud?	
2. ¿Se siente satisfecha o insatisfecha con la visita de hoy al centro de salud?	
1=	Satisfecha (-----Q4)
2=	Insatisfecha
3=	Otro (-----Q4)

3. ¿Por qué esta insatisfecha/o con la visita de hoy?	

4. ¿Siente que ha recibido la información y los servicios que quería durante la visita de hoy?	
1=	Si
2=	No
3=	Parcialmente
98=	No sabe
99=	No aplicable

5. ¿Siente que la consulta con el doctor o la enfermera fue demasiado corta, larga o suficiente?	
1=	Demasiado larga
2=	Demasiado corta
3=	Suficiente
98=	No sabe
99=	No aplicable

6. ¿Durante la consulta tenía algunas preguntas para el doctor o la enfermera?	
1=	Si
2=	No (----Q.8)
98=	No sabe (-----Q.8)

7. (Si si) ¿La enfermera o el doctor le dieron la oportunidad de hacer estas preguntas?	
1=	Si
2=	No
98=	No sabe

8. ¿El doctor o la enfermera que le atendió era hombre o mujer?	
1=	Hombre
2=	Mujer

9. ¿Prefiere que sea mujer o hombre para los servicios de PF?	
1=	Si
2=	No
98=	No sabe

10. ¿Durante la consulta, el doctor o la enfermera le hicieron algunos exámenes?	
1=	Si
2=	No (----Q12)
98=	No sabe (----Q12)

11. (Si si) ¿Durante su visita, el doctor o la enfermera le explicaron el objetivo de los exámenes antes de hacerlos?	
1=	Si
2=	No
98=	No sabe

12. ¿Se siente segura que nadie pudo escuchar la conversación entre usted y el doctor o la enfermera?	
1=	Si
2=	No
98=	No sabe
99=	No aplicable

13. ¿Durante la consulta entendió fácilmente la explicación del doctor o la enfermera o sintió que era difícil entenderlos?	
1=	Fácil de entender
2=	Difícil de entender
3=	Más o menos
98=	No sabe
99=	No aplicable

14. ¿Durante la consulta le dieron algún folleto o alguna documentación educacional para llevar a la casa?	
1.	Si
2.	No
98	No sabe

15. ¿El doctor/enfermera le dijo cuando debe regresar por una visita?	
1.	Si
2.	No
98.	No sabe

16. ¿Las horas de apertura de este centro de salud son convenientes para usted?	
1=	Si (-----Q18)
2=	No
98=	No sabe (-----Q18)

17. (Si no) ¿Que horas serían más convenientes para usted? (Circle one)	
1=	Temprano por la mañana
2=	En la hora del almuerzo
3=	En la tarde
4=	En la noche
5=	Los fines de semana
6=	Otro
98=	No sabe

18. ¿Alguna vez usted vino por cierto tipo de servicio de salud reproductiva y le han dicho de regresar otro día?	
1=	Si
2=	No
3=	No ha tenido experiencia anterior con el centro de salud
98=	No sabe

19. ¿Cuanto tiempo esperó entre su llegada al centro de salud y su consulta?	
1.minutes
98=	No sabe (-----Q21)

20. ¿Piensa que el tiempo que esperó es razonable o es demasiado largo?	
1=	Razonable
2=	Demasiado largo
98=	No sabe

21. ¿Cuanto tiempo tardó en llegar al centro de salud?	
1.horas.....minutos
98=	No sabe

22. ¿Cómo llego aquí? (Indica todos)	23. ¿Cuanto tiempo paso en este medio de transporte?
1=	Caminando
2=	Bus
3=	Bicicleta
4=	Carro
5=	Otro

24. ¿Que tipos de métodos de PF están disponibles en este centro? (Do not read, tick if mentioned)	
1.	La píldora combinado
2.	La píldora-solo progesterona
3.	T-de-cobre
4.	Injectables
5.	NORPLANT
6.	Preservativo
7.	Diafragma
8.	Tabletas Vaginales
9.	Esterilización femenina
10.	Esterilización masculina
11.	PF natural
12.	Solo pecho
13.	Otro:
98.	No sabe

25. ¿Aparte del centro de salud de Jocotán hay otros servicios de salud que ofrecen servicios de PF cerca de donde vive?	
1=	Si
2=	No (-----Q28)
98=	No sabe (-----Q28)

26. (Si si) ¿Que tipo de servicio de salud es? (If more than one, choose the one closest)	
1=	Promotor/guardián de salud
2=	Puesto de salud
3=	Centro de salud de Camotan
4=	Bethania
5=	Medico ambulatorio
6=	Otro
98=	No sabe

27. ¿Cual fue la razón principal por la cual usted no fue a este servicio de PF? (Do not read the list but ask the main reason and circle one)	
1=	No ofrece PF
2=	Horas de apertura inconvenientes
3=	Demasiado lejos
4=	Baja calidad de los servicios
5=	Quiere servicio anónimo
6=	Tiene otras razones de llegar al pueblo
7=	Mas caro
8=	No hay doctor/enfermera
9=	Otro
98	No sabe

28. Le quiero preguntar ahora sobre los gastos de este servicio. ¿Cuanto pagó (READ 1-6)?	
	<i>Indicate price (in Quetzales)</i> <i>98=No sabe</i>
1. Consulta:	
2. Métodos de PF.:	
3. Camino/transporte:	
4. Otros:	

29. ¿Considera que el total de sus gastos fue muy caro, caro o aceptable?	
1=	Muy caro
2=	Caro
3=	Aceptable
98=	No sabe

30. Si podría sugerir un mejoramiento de los servicios de PF del centro de salud ¿Que sugería?	

31. (See client's main purpose of visit on page 1, then read this question)	
Yo entendí que su objetivo principal de esta visita era: (Pagina 1). ¿Esto es correcto?	
<i>If correct, circle the same response that appears on page 1, and skip to the question indicated. If not correct, ask for the correct purpose of the client's visit, circle the correct response below, and skip to the question indicated.</i>	
1.	Información sobre PF (----Q32)
2.	Nuevo aceptor de PF (-----Q38)
3.	Aceptor de PF que re-empieza (----Q38)
4.	Provisión de método o visita de control (-----Q51)
5.	Problema con el método o deseo de cambiar/discontinuar el método de PF (----Q55)
6.	Otro (-----Q95)

Para clientes que únicamente vinieron para información

32.	¿Que métodos el doctor/enfermera le mencionó hoy? <i>(Do not read, tick)</i>	33¿Que sabe usted de este método?
1.	La píldora combinado	1. Correcto 2. Incorrecto
2.	La píldora-solo progesterona	1. Correcto 2. Incorrecto
3.	T-de-cobre	1. Correcto 2. Incorrecto
4.	Inyectables	1. Correcto 2. Incorrecto
5.	NORPLANT	1. Correcto 2. Incorrecto
6.	Preservativo	1. Correcto 2. Incorrecto
7.	Diafragma	1. Correcto 2. Incorrecto
8.	Tabletas Vaginales	1. Correcto 2. Incorrecto
9.	Esterilización femenina	1. Correcto 2. Incorrecto
10.	Esterilización masculina	1. Correcto 2. Incorrecto
11.	PF natural	1. Correcto 2. Incorrecto
12.	Solo pecho	1. Correcto 2. Incorrecto
13.	Otro:	1. Correcto 2. Incorrecto
98.	No sabe	

34.	¿Cuál sería su método de PF preferido?
1.	La píldora combinado
2.	La píldora-solo progesterona
3.	T-de-cobre
4.	Inyectables
5.	NORPLANT
6.	Preservativo
7.	Diafragma
8.	Tabletas Vaginales
9.	Esterilización femenina
10.	Esterilización masculina
11.	PF natural
12.	Solo pecho
13.	Otro:
98.	No sabe

35.	¿Porque prefiere.....?

36.	¿Quien le recomendó su método preferido de PF?
1.	Doctor/enfermera
2.	Esposo
3.	Amiga
4.	Familia
5.	Hermana
6.	APROFAM
7.	Otro
98.	No sabe

37.	¿Quién tomara la decisión final sobre el método que usted va usar?
1.	Yo
2.	Esposo
3.	Familia
4.	Doctor/enfermera
5.	APROFAM
6.	Otro
98.	No sabe

<p style="text-align: center;">PARA ACEPTORES NUEVOS</p>

38.	Para asegurarme, yo entiendo que usted no estaba usando un método de PF cuando vino a este centro de salud hoy. ¿Esto es correcto?
1.	No estaba usando
2.	Estaba usando (regresa a Q31)

39.	¿Ha usado un método en el pasado alguna vez?
1.	Si
2.	No (-----Q. 41)

40. (Si si) ¿Que métodos ha usado? (Do not read methods but probe by asking: 'Have you ever used any other methods?' Tick if mentioned)	
1.	La píldora combinado
2.	La píldora-solo progesterona
3.	T-de-cobre
4.	Inyectables
5.	NORPLANT
6.	Preservativo
7.	Diafragma
8.	Tabletas Vaginales
9.	Esterilización femenina
10.	Esterilización masculina
11.	PF natural
12.	Solo pecho
13.	Otro:
98.	No sabe

41.	¿Recibió algún método durante esta visita?
1.	Si (-----Q. 43)
2.	No

42.	(Si no) ¿Cual fue la razón principal por la cual NO recibió un método de PF hoy? (Circle one)
1.	Solo vino para información (-----Q32)
2.	Cambio de opinión (-----Q95)
3.	Embarazo sospechado (-----Q95)
4.	Contra-indicaciones para el método (-----Q95)
5.	Continuar con pecho (-----Q95)
6.	Otro problema de salud (-----Q95)
7.	Método no disponible (-----Q95)
8.	Otro: (-----Q95)
98.	No sabe (-----Q95)

43.	¿Cual método(s) recibió hoy? (Do not read methods but probe by asking: 'Did you accept any other methods?' Tick if mentioned)
1.	La píldora combinado
2.	La píldora-solo progesterona
3.	T-de-cobre
4.	Inyectables
5.	NORPLANT
6.	Preservativo
7.	Diafragma
8.	Tabletas Vaginales
9.	Esterilización femenina
10.	Esterilización masculina
11.	PF natural
12.	Solo pecho
13.	Otro:
98.	No sabe

44.	¿El doctor/enfermera le menciona algún otro método de PF?
1.	Si
2.	No
98.	No sabe

45.	¿El doctor/enfermera le dijo que puede cambiar de método si no esta contento con este?
1.	Si
2.	No
98.	No sabe

46.	¿El doctor/enfermera le menciona alguna otra fuente de PF donde puede ir por una visita de seguimiento?
1.	Si
2.	No
98.	No sabe

47.	¿Hay algún método que hubiera preferido en vez del método que recibió hoy?
1.	Si
2.	No (-----Q.50)
98.	No sabe (-----Q.50)

48.	(Si si) ¿Cuál método hubiera preferido? (Circle one)
1.	La píldora combinado
2.	La píldora-solo progesterona
3.	T-de-cobre
4.	Inyectables
5.	NORPLANT
6.	Preservativo
7.	Diafragma
8.	Tabletas Vaginales
9.	Esterilización femenina
10.	Esterilización masculina
11.	PF natural
12.	Solo pecho
13.	Otro
98.	No sabe

49.	¿Porque no va a usar su método preferido? (Do not read list but probe by asking: 'Any other reasons?') Tick if mentioned
1.	Doctor/enfermera dijo que no era apropiado
2.	Método no ofrecido en el centro de salud
3.	Doctor/enfermera no capacitado
4.	Método temporalmente no disponible
5.	Otro
98.	No sabe

50.	(Circle the most effective method accepted by the client from Q 43) Quisiera preguntarle como va a usar el método (Read method)
1.	La píldora combinado (-----Q68)
2.	La píldora-solo progesterona (-----Q68)
3.	T-de-cobre (-----Q75)
4.	Inyectables (-----Q81)
5.	NORPLANT (-----Q95)
6.	Preservativo (-----Q87)
7.	Diafragma (-----Q95)
8.	Tabletas Vaginales (-----Q95)
9.	Esterilización femenina (-----Q90)
10.	Esterilización masculina. (-----Q95)
11.	PF natural (-----Q95)
12.	Solo pecho (-----Q95)
13.	Otro (-----Q95)

Para clientes que vienen de regreso sin problemas

51.	Para asegurarme, entiendo que estaba usando un método de PF cuando vino a este centro de salud hoy. ¿Esto es correcto?
1.	Si, estaba usando
2.	No, no estaba usando (regresa a Q31)

52. (Si si) ¿Cual método(s) estaba usando? (Do not read methods but probe by asking: 'Any other methods?' Tick if mentioned)	
1.	La píldora combinado
2.	La píldora-solo progesterona
3.	T-de-cobre
4.	Inyectables
5.	NORPLANT
6.	Preservativo
7.	Diafragma
8.	Tabletas Vaginales
9.	Esterilización femenina
10.	Esterilización masculina.
11.	PF natural
12.	Solo pecho
13.	Otro:
98.	No sabe

53. ¿Planifica continuar con este método?	
1=	Si
2=	No (-----Q55)
98=	No sabe (-----O95)

54.	(Circle the most effective method accepted by the client from Q 52) Quiero preguntarle como va a usar el método (Read method)
1.	La píldora combinado (-----Q68)
2.	La píldora-solo progesterona (-----Q68.)
3.	T-de-cobre (-----Q75)
4.	Injectables (-----Q81)
5.	NORPLANT (-----Q95)
6.	Preservativo (-----Q87)
7.	Diafragma (-----Q95)
8.	Tabletas Vaginales (-----Q95)
9.	Esterilización femenina (-----Q90)
10.	Esterilización masculina (-----Q95)
11.	PF natural (-----Q95)
12.	Solo pecho (-----Q95)
13.	Otro (-----Q95)

Para clientes que vienen de regreso con problemas o deseos de cambiar/discontinuar

55.	Para asegurarme, entiendo que estaba usando un método de PF cuando vino a este centro de salud hoy. ¿Es correcto?
1.	Si, estaba usando
2.	No, no estaba usando (regresa a Q31)

56. (Si si) ¿Que método(s) estaba usando? (Do not read methods but probe by asking: 'Any other methods?' Tick if mentioned)

1.	La píldora combinado
2.	La píldora-solo progesterona
3.	T-de-cobre
4.	Inyectables
5.	NORPLANT
6.	Preservativo
7.	Diafragma
8.	Tabletas Vaginales
9.	Esterilización femenina
10.	Esterilización masculina
11.	PF natural
12.	Solo pecho
13.	Otro:
98.	No sabe

57. ¿Es correcto que planifica cambiar/discontinuar/parar de usar este método?

1=	Si
2=	No (-----Q53)

58. ¿Cual es la razón principal para terminar/cambiar/discontinuar con su método de PF? (Circle one)

1=	Contra-indicaciones medicales
2=	Esposo no le gusta (-----Q61)
3=	Presión social (-----Q61)
4=	Miedo de infertilidad (-----Q61)
5=	Quiere embarazarse (-----Q61)
6=	No le gusto el método (-----Q61)
7=	Método no disponible (-----Q61)
8=	Otro (-----Q61)
98=	No sabe (-----Q61)

59. (If had medical side effects) ¿Cuando decidió usar este método, le advirtieron que este problema se podría presentar?

1.	Si
2.	No (----Q61)
98.	No sabe (----Q61)

60. (Si si) ¿Le dijeron lo que debe hacer en caso de problemas?

1.	Si
2.	No
98.	No sabe

61.	¿Durante la consulta, sintió que recibió la ayuda/asistencia que necesitaba?
1.	Si
2.	No
3.	Parcialmente
98.	No sabe

62.	¿Qué va hacer ahora con PF? (Circle one)
1.	Cambiar de método
2.	Continuar con el mismo método (-----Q67)
3.	Ya no usar un método (-----Q95)
98.	No sabe (-----Q67)

63.	(If changing method) ¿Que método va a usar ahora? (Do not read methods but probe by asking: ‘Any other methods?’) (Tick if mentioned)
1.	La píldora combinado
2.	La píldora-solo progesterona
3.	T-de-cobre
4.	Inyectables
5.	Preservativo
6.	Diafragma
7.	Tabletas Vaginales
8.	Esterilización femenina
9.	Esterilización masculina
10.	PF natural
11.	Solo pecho
12.	Otro
98.	No sabe

64.	¿El doctor/enfermera le menciona algún otro método?
1.	Si
2.	No
98.	No sabe

65.	¿El doctor/enfermera le dijo que puede cambiar de método si usted no esta contento con este?
1.	Si
2.	No
98.	No sabe

66.	¿El doctor/enfermera le menciona alguna otra fuente de PF donde puede ir por una visita de seguimiento?
1.	Si
2.	No
98.	No sabe

67.	(Circle the most effective method accepted by the client from Q67) Quisiera preguntarle como va usar el método (Read method)
1.	La píldora combinado (-----Q68)
2.	La píldora-solo progesterona (-----Q68)
3.	T-de-cobre (-----Q75)
4.	Inyectables (-----Q81)
5.	NORPLANT (-----Q95)
6.	Preservativo (-----Q87)
7.	Diafragma (-----Q95)
8.	Tabletas Vaginales (-----Q95)
9.	Esterilización femenina (-----Q90)
10.	Esterilización masculina (-----Q95)
11.	PF natural (-----Q95)
12.	Solo pecho (-----Q95)
13.	Otro (-----Q95)

Para las mujeres que usan la píldora

68.	Cuando una mujer usa la píldora ¿en que momento del ciclo menstrual ella debe empezar a tomarla?
1.	Entre el 1-5 día del ciclo menstrual
2.	Otra respuesta
98.	No sabe
68b	¿El doctor/enfermera del centro de salud alguna vez le dio/no le dio esa información? Si/no

69.	¿Cuántas veces una mujer debe tomar la píldora?
1.	Una cada día
2.	Otra respuesta
98.	No sabe

70.	¿Si una mujer olvida de tomar la píldora un día, que debe hacer?
1.	Tomar la píldora que se olvidó luego
2.	Otra respuesta
98.	No sabe

71.	Por lo que usted sabe ¿que tipo de problemas una mujer puede tener cuando toma la píldora? (Do not read list, but probe by asking 'Any other problems?' Tick if mentioned)
1.	Nausea
2.	Dolor de cabeza
3.	Perder sangre
4.	Perder/aumentar de peso
5.	Cáncer
6.	Infertilidad
7.	Otro:
77.	Ningún problema mencionado
98.	No sabe
71b	¿El doctor/enfermera del centro de salud alguna vez le dio/no le dio esa información? Si/no

72.	Aparte de las visitas regulares ¿por que tipo de problemas una mujer que toma la píldora debería regresar con el medico/al centro de salud? (Do not read list but probe by asking : Any other problems?' Tick if mentioned)
1.	Dolor de pecho o problemas de respiración
2.	Fuerte dolor de cabeza
3.	Vista perturbada
4.	Fuerte dolor de estomago
5.	Fuerte dolor de pierna
6.	Menstruación retardada
7.	Otro:
77.	Ningún problema mencionado
98.	NO sabe
72b	¿El doctor/enfermera del centro de salud alguna vez le dio/no le dio esa información? Si/no

73.	¿El doctor/enfermera le dio una provisión de píldoras hoy?
1.	Si (-----Q95)
2.	No

74.	(Si no) ¿Donde va a buscar sus píldoras? (Circle one)
1.	Dentro del centro pero otra sección
2.	Regresar al centro de salud otro día
3.	Otro centro de salud
4.	Farmacia
5.	Doctor privado
6.	Otro
98.	No sabe

Para las mujeres que usan el T-de-cobre

75.	¿Visito el centro de salud hoy para la inserción/extracción/control del t-de-cobre?
1.	Inserción hoy
2.	Extracción
3.	Control de rutina

76.	¿Que debe hacer una mujer para verificar si el t-de-cobre siempre esta en su lugar? (Circle all that apply)
1.	Chequear hilos regularmente
2.	Ir al centro de salud
3.	Otra respuesta
4.	No sabe
76b	¿El doctor/enfermera del centro de salud alguna vez le dio/no le dio esa información? Si/no

77.	¿Por lo que usted sabe, que tipo de problemas una mujer puede tener cuando tiene un t-de-cobre? (Do not read list, but probe by asking ‘Any other problems?’ Tick if mentioned)
1.	Calambres en el estomago
2.	Fuerte perdida de sangre
3.	Perdida de sangre en los periodos non-menstruales
4.	Dolor de espalda
5.	Dolor de estomago bajo (infección)
6.	Infertilidad
7.	Secreción de la vagina
8.	Otro
77.	Ningún problema mencionado
98.	No sabe
77b	¿El doctor/enfermera del centro de salud alguna vez le dio/no le dio esa información? Si/no

78.	¿Cuanto tiempo después de la inserción del t-de-cobre una mujer debe regresar a consultar al medico o al centro de salud? (Circle one)
1.	Después de un mes
2.	Después de tres meses
3.	Después de un año
4.	Cuando pueda
5.	No es necesario de regresar
98.	No sabe
78b	¿El doctor/enfermera del centro de salud alguna vez le dio/no le dio esa información? Si/no

79.	Aparte de las visitas regulares de control ¿por que tipo de problemas una mujer que tiene un t-de-cobre debe regresar al medico o al centro de salud? (Do not read list, but probe by asking ‘Any other problems?’ Tick all mentioned)
1.	Secreción fuerte de la vagina
2.	Perdida de sangre anormal
3.	Expulsión o no puede sentir los hilos
4.	Dolor de estomago bajo
5.	Fuertes calambres
6.	Dolor durante el contacto sexual
7.	Dolor de espalda
8.	Menstruación tardaba
9.	No sentirse bien
10.	Otro
98.	No sabe
79b	¿El doctor/enfermera del centro de salud alguna vez le dio/no le dio esa información? Si/no

80.	¿Cuantos años una mujer esta protegida contra el embarazo con el t-de-cobre?
1.años.
98.	Otra respuesta
80b	¿El doctor/enfermera del centro de salud alguna vez le dio/no le dio esa información? Si/no

Para mujeres que han usado la inyección

81.	¿Recibió una inyección hoy?
1.	Si (-----Q84)
2.	No

82.	(Si no) ¿En donde va a buscar su inyección? (Circle one)
1.	Dentro del centro pero otra sección
2.	Regresar al centro de salud otro día
3.	Otro centro de salud
4.	Farmacia
5.	Doctor privado
6.	Otro
98.	No sabe

83.	¿Cuánto debería pagar entonces? (Circle one)
quetzales

84.	¿Cuántas veces piensa que debe recibir una inyección? (Circle one)
1.	Cada mes
2.	Cada dos meses
3.	Cada tres meses
4.	Tanto que quiere
98.	No sabe
84b	¿El doctor/enfermera del centro de salud le dio/no le dio esa información? Si/no

85.	¿Por lo que usted sabe, que tipo de problemas una mujer puede tener cuando recibe una inyección? (Do not read list, but probe by asking 'Any other problems?' Tick all mentioned)
1.	Suave dolor de cabeza
2.	Nausea
3.	Perdida de sangre irregular
4.	Aumento de peso
5.	Infertilidad
6.	Amenorrea
7.	Otro:
77.	Ningún problema mencionado
98.	No sabe
85b	¿El doctor/enfermera del centro de salud le dio/no le dio esa información? Si/no

86.	¿Aparte de las visitas regulares de control, por que tipo de problemas una mujer que ha recibido una inyección debe regresar al medico o al centro de salud? (Do not read list, but probe by asking: ‘Any other problems?’ Tick all mentioned)
1.	Fuerte y persistente dolor de cabeza
2.	Fuerte perdida de sangre
3.	Dolor de pecho, falte de aire
4.	Fuerte dolor de estomago bajo
5.	Fuerte dolor de pierna
6.	Vista perturbada
7.	Orinar frecuente
8.	Menstruación retardada
9.	Otro:
77.	Ningún problema mencionado
98.	No sabe
86b	¿El doctor/enfermera del centro de salud le dio/no le dio esa información? Si/no

<p align="center">Para mujeres que usan el preservativo</p>
--

87.	¿El preservativo proteja contra el SIDA?
1.	Si
2.	No
3.	Parcialmente
98.	No sabe
87b	¿El doctor/enfermera del centro de salud le dio/no le dio esa información? Si/no

88.	¿Recibió preservativos hoy?
1.	Si (-----Q. 95)
2.	No

89.	(Si no) ¿Donde va a buscar sus preservativos? (Circle one)
1.	Regresar al centro de salud otro día (-----Q95)
2.	Otro centro de salud (-----Q95)
3.	Farmacia (-----Q95)
4.	Puesto de salud (-----Q95)
5.	Doctor privado
6.	Otro (-----Q95)
98.	No sabe (-----Q95)

<p align="center">Para mujeres que están esterilizadas</p>

90.	¿En donde fue esterilizada? (Circle one)
1.	Hospital de Chiquimula
2.	Hospital de Zacapa
3.	Hospital de la capital
4.	Otro:

91.	¿Estuvo satisfecha con el servicio del hospital donde se opero?(<i>Circle one</i>)
1.	Satisfecha (-----93)
2.	Mas o menos
3.	Insatisfecha

92.	¿Que fue lo que no le gusto del servicio de su esterilización en el hospital?

93.	¿Quien le recomendó la esterilización?
1.	El doctor/enfermera del centro de salud
2.	Mi esposo
3.	Familia
4.	Una amiga
5.	Doctor o enfermera de otro servicio de salud
6.	Otro:

94.	¿Le recomendaría usted la esterilización a una amiga?
1.	Si
2.	No

<p style="text-align: center;">Indicadores socio-demográficos---ALL CLIENTS</p>
--

95. Le quiero preguntar ahora algo sobre usted. ¿Esta dando pecho ahora?	
1=	Si
2=	No

96. ¿Que edad tiene?	
 Años
98=	No sabe

97. ¿Cual es su estado matrimonial? (<i>Ask for the exact marital status</i>)	
1=	Casado (-----Q99)
2=	En unión (-----Q99)
3=	Soltero
4=	Separado/divorciado
5=	Viuda

98. (Si no es casada) ¿Tiene una pareja regular?	
1=	Si
2=	No (-----Q100)

99. ¿Su esposo o pareja sabe que usa o piensa en usar un método de PF?	
1=	Si
2=	No
98=	No sabe

100. ¿Cuántos hijos tiene?	
.....hijos (Si ninguno----Q 103)	

101. ¿Cual es la edad del hijo mas joven?	
	...meses...años
98=	No sabe

102. ¿Donde nació el hijo mas joven?	
1.	Casa
2.	Hospital
3.	Otro:

103. ¿ Quisiera tener mas hijos? (Circle one)	
1=	Si
2=	No (----Q 105)
3=	Depende de mi esposo (----- Q 105)
4=	Si Dios quiere (----- Q 105)
5=	No esta segura (----- Q105)

104. (Si si), ¿Cuando quisiera tener otro hijo? (Circle one)	
1=	En menos de un año
2=	En un año
3=	Entre un año y dos años
4=	En dos años
5=	En mas de dos años
6=	Otra respuesta
98	No sabe

105. ¿Que idiomas puede entender? (Ask at the end: 'Are there any more?')	
	<i>Tick if mentioned</i>
1. Español	
2. Ch'orti	
3. Ingles	
4. Otro	

106. ¿Hasta que nivel estudió en la escuela? (Circle one)	
1=	No atendió la escuela-Analfabeto
2=	Primaria (1-3 anos)
3=	Primaria (4-6 anos)
4=	Secundaria (7-9 anos)
5=	Secundaria (10-12 anos)
6=	Post-secundaria

107. ¿Cual es su religión? (Circle one)	
1=	Protestante
2=	Católico
3=	Muslim
4=	Maya
5=	Ninguno
6=	Otro

108.	¿Se considera....?	1. Indígena	
		2. <i>Ladino</i>	
		3. Mix	

109.	¿Donde vive usted?	Jocotan: 1. San Sebastián 2. Calvario 3. San Lorenzo 4. Mitch 5. Cementerio 6. Cerro Cahui	
		Nombre de su aldea:	

Muchas gracias por su colaboración!!!

Annex III.4

Interviews with family planning service providers, Jocotán 2004

All health facility staff that is responsible for providing family planning should be interviewed individually and in private at the end of the working day. It should be made clear that you are seeking their assistance in findings ways of improving the functioning and quality of the services offered by facilities in general, and are not evaluating the performance of the facility or of them individually.

Hola, Yo me llamo Sofie De Broe y soy una estudiante de la Universidad de Southampton (UK). Estoy haciendo un estudio aquí en Jocotán para ver como se podrían mejorar los servicios de salud reproductiva existentes y cuales son las barreras o problemas en la provisión de planificación familiar. Estoy interesada en saber cuales han sido sus experiencias en la provisión de planificación familiar. Le puede hacer unas preguntas sobre esto? Puede estar seguro que toda la información que usted me va a dar será confidencial. También, no tiene la obligación de responder todas las preguntas y puede retirarse de la entrevista en cualquier momento. Puedo continuar?

If the provider agrees to continue ask if he/she has any questions. Respond to questions as appropriate, then ask Q1. If the provider does not agree to continue, thank her and go to the next interview.

Date of interview:

Name of the provider:

Qualification of the staff member:

Type of health facility:

Type of sector (Gov/priv/mission):

Designation of staff member:

1. Doctor
2. Nurse
3. Nurse-midwife
4. CBD (community based distributor)

Característicos socio-demográficos

1. Que edad tiene?
....Anos
98 = No sabe

2. Cual es su estado matrimonial?
1= Casado
2= Unido
3= Soltero
4= Divorciado/separado
5= Viudo/a

3. Que religión tiene?	
1=	Protestante
2=	Católico
3=	Maya
4=	Ninguno
5=	Otro
98=	No sabe

4. Como se considera usted?	
1=	Ladino
2=	Mix
3=	Indígena
4=	Ninguno

5. Sexo	
1=	Femenino
2=	Masculino

6. Hace cuanto tiempo trabaja en este servicio de salud?	
años...meses
00=	Menos de 6 meses
98=	No sabe

7. Su carrera/estudios cubrían planificación familiar?	
1.	Si
2.	No

8. En los últimos dos años recibió cursos de refrescamiento en este tema?	
1.	Si
2.	No

9. Cuantas horas por día trabaja aquí (promedio)?	
... horas	

10. Tiene su clínica privada u otro trabajo aparte de este trabajo?	
1=	Si
2=	No

11. Le gusta su trabajo? PORQUE NO?	

Experience and training in FP/MCH/STD services

1. Quisiera preguntarle sobre los servicios que usted provee a los pacientes que vienen a este centro de salud. Que tipo de servicios provee a sus pacientes?		
		<i>Read 1-14 and tick if yes</i>
1.	Planificación familiar	
2.	Consulta prenatal	
3.	Asistencia materna/de parto	
4.	Consulta postnatal	
5.	Orientación y prueba de EST/SIDA	
6.	Inmunización de niños	
7.	Registro del crecimiento de los niños	
8.	Consultas sobre infecundidad	
9.	Programa de re-hidratación oral	
10.	Tratamiento de aborto incompleto	
11.	Consulta sobre nutrición	
12.	Servicios curativos-niños	
13.	Servicios curativos-clientes	
14.	Otro:	

2. Ha atendido usted algún curso específicamente de planificación familiar, administración de programas de PF o orientación de EST?		
1= Si	2= No (-----Q4)	98= No sabe (-----Q4)

3. Hace cuanto tiempo recibió este curso?
.....mesesaños
98. No sabe

4. En los últimos seis meses, ha proveído PF a alguno de sus clientes?		
1=Si	2=NO (----Q25)	98=No sabe (----Q25)

5. (If yes) Que métodos ha proveído/prescripto en los últimos seis meses? (Read 1-14)	<i>Tick if mentioned</i>
1. La píldora combinado	
2. La píldora-solo progesterona	
3. T-de-cobre	
4. Inyectables	
5. NORPLANT	
6. Preservativo	
7. Diafragma	
8. Tabletas vaginales	
9. Esterilización femenina	
10. Esterilización masculina.	
11. PF natural	
12. Solo pecho	
13. PF de emergencia	
14. Otros	
15.	

	6. Hay una edad mínima debajo de la cual usted no prescribe los métodos siguientes (<i>Read 1-5</i>) en ausencia de contra-indicaciones?	7. (Si si) Cual es la edad mínima entonces?
1. Píldora		Edad: _____
2. Preservativo		Edad: _____
3. T de cobre		Edad: _____
4. Inyectables		Edad: _____
5. Esterilización		Edad: _____
	8. Hay una edad máxima arriba de la cual usted no prescribe los métodos siguientes (<i>read 1-5</i>) en ausencia de contra-indicaciones?	9. (Si si) Cual es la edad máxima entonces?
1. Píldora		Edad: _____
2. Preservativo		Edad: _____
3. T de cobre		Edad: _____
4. Inyectables		Edad: _____
5. Esterilización		Edad: _____

	10. La mujer debe tener un numero mínimo de hijos antes de que usted le prescriba uno de los métodos siguientes (<i>Read 1-5</i>) en ausencia de contra-indicaciones?	11. (Si si) Cual es el numero mínimo de hijos que ella debe de tener?
1. Píldora		Numero: _____
2. Preservativo		Numero: _____
3. T de cobre		Numero: _____
4. Inyectables		Numero: _____
5. Esterilización		Numero: _____

	12. Usted prescribiría a una mujer no casada uno de los métodos siguientes (<i>Read 1-5</i>) en ausencia de contra-indicaciones?	13. Usted solicita el consenso del esposo antes de la prescripción de los métodos siguientes (<i>Read 1-5</i>)?
1. Píldora		
2. Preservativo		
3. T-de-cobre		
4. Inyectables		
5. Esterilización		

	14. Hay algunos métodos de PF que usted recomienda cuando la pareja quiere espaciar o retrasar el nacimiento del siguiente hijo suponiendo que no hay contra-indicaciones? 1= Si (to Q 14a) 2=No (to Q 15) 3= Depende de la salud del cliente (to Q 15) 4= Depende de la preferencia del cliente (to Q 15) 99= No responde (to Q 15)	15. Hay algunos métodos de PF que usted recomienda cuando la pareja ya no quiere tener hijos suponiendo que no hay contra-indicaciones? 1= Si (to Q 15a) 2=No (to Q 16) 3= Depende de la salud del cliente (to Q 16) 4= Depende de la preferencia del cliente (to Q 16) 99= No responde (to Q 16)
	14a. Que métodos?	15a. Que métodos?
<i>(Do not read methods but probe with: ‘Any other methods?’) Indicate if mentioned</i>		
1. La píldora combinado		
2. La píldora-solo progesterona		
3. T-de-cobre		
4. Inyectables		
5. NORPLANT		
6. Preservativo		
7. Diafragma		
8. Tabletas vaginales		
9. Esterilización femenina		
10. Esterilización masculina		
11. PF natural		
12. Solo pecho		
13. Otros		
	16. Hay algunos métodos de PF que usted NO recomendaría en caso de clientes con una EST? 1= Si (to Q 16a) 2=No (to Q 17) 3= Depende de la salud del cliente (to Q 17) 4= Depende de la preferencia del cliente (to Q 17) 99= No respuesta (to Q 17)	17. Hay algunos métodos de PF que usted NUNCA recomendaría en ninguna circunstancia? 1= Si (to Q 17a) 2=No (to Q 18) 3= Depende de la salud del cliente (to Q 18) 4= Depende de la preferencia del cliente (to Q 18) 99= No respuesta (to Q 18)
	16a. Que métodos?	17a. Que métodos?
<i>(Do not read methods but probe with: ‘Any other methods?’) Tick if mentioned</i>		
1. La píldora combinado		
2. La píldora-solo progesterona		
3. T-de-cobre		
4. Inyectables		
5. NORPLANT		
6. Preservativo		
7. Diafragma		
8. Tabletas vaginales		
9. Esterilización femenina		
10. Esterilización masculina		
11. PF natural		
12. Solo pecho		
13. Otros:		

18. Que hace usted con un cliente nuevo que quiere usar la píldora u otro método hormonal pero que no tiene su menstruación? (Do not read but probe with: anything else?)	Tick if mentioned
1. Hacer prueba de embarazo	
2. Decirle que tiene que regresar cuando tenga la siguiente menstruación	
3. Tratar de inducir la menstruación	
4. Darle preservativos y decirle que tiene que regresar cuando tenga su menstruación	
5. Darle un método hormonal	
6. Darle preservativos y métodos hormonales y decirle que tiene que usar los preservativos hasta que tenga su menstruación	
7. Otros	

19. Bajo cual condiciones de salud usted no prescribe la píldora a un paciente? (Do not read but probe with: anything else?)	Tick if mentioned
1. Mujer arriba de 35 anos que fuma	
2. Problemas de corazón	
3. Tensión alta	
4. Cáncer del útero	
5. Diabético	
6. Embarazo	
7. Otro:	

20. Cuando un usuario de la píldora viene por un chequeo o viene a buscar una nueva prescripción y le parece que ella tiene riesgo de tener una EST/SIDA, que tipo de consejos usted le da? (Do not read but probe with: anything else?)
1. Seguir usando la píldora solamente
2. Seguir usando la píldora pero con preservativo también
3. Cambiar la píldora por el preservativo
4. Parar de usar cualquier método de PF
5. Dar orientación sobre SIDA/EST o referir por orientación
6. Otro
98. No sabe

21. Que tipo de revisión médica (que síntomas) hace con los pacientes que piden DEPOPROVERA? (Do not read but probe with: anything else?)	Tick if mentioned
1. Mujer arriba de 35 anos que fuma	
2. Problemas de corazón	
3. Tensión alta	
4. Cáncer del útero	
5. Diabético	
6. Embarazo	
7. Verificar riesgo de EST/SIDA	
8. Otro:	
98. No sabe	

22. Si la mujer no puede venir por la visita de la inyección siguiente que la recomienda? (Do not read but probe with: anything else?)	Tick if mentioned
1. Puede venir una semana mas tarde	
2. Puede venir dos semanas mas tarde	
3. Puede regresar cuando quiere	
4. Debe regresar antes	
5. Otro:	
98. No sabe	

23. Cuando usted tiene un cliente y usted piensa que tiene una EST/SIDA, que hace usted por ella? (Do not read list, circle what applies)	Tick if mentioned
1. Pedir prueba laboratorio	
2. Diagnósis	
3. Tratamiento	
4. Referir por diagnóstico	
5. Referir por tratamiento	
6. Darle orientación	
7. Referir por orientación	
8. Escribir una nota de contacto o notificación para el compañero	
9. Otro:	

24. Que cómodo se siente de hablar de comportamiento sexual relacionado con EST y SIDA ¿Se siente muy incomodo, cómodo o muy cómodo?
1= Muy incomodo
2= Algo incomodo
3= Cómodo
4= Muy cómodo
98= No responde

25. Por lo que usted sabe, hay mujeres que vienen a preguntar sobre aborto/terminación de embarazo en este servicio de salud?
1= Si
2= No
98= No sabe

26. Por lo que usted sabe, hay mujeres que vienen en este servicio de salud con complicaciones causadas por una terminación de un embarazo?
1= Si
2= No
98= No sabe

Ahora pasamos a la parte más interpretativo del estudio. Tratamos de discutir sobre los diferentes temas de planificación familiar de una manera libre:

Topic area	Core questions	Follow-up questions
Use of FP	Que tan común es el uso de PF en la área Ch'orti?	Que métodos se usan? Que son los mas usados? Quien los usa? PORQUE (NO)? Quien decida sobre el método de uso? Que tan importante son los 'metodos naturales'? Que significa 'método natural'?
Use of FP	Que tipo de barreras contra el uso de PF existen en la área Ch'orti?	Distancia y oportunidad? Costo? Confianza o timidez? Presión social/tabu? Rumores y mitos? Falta de informacion? Jóvenes? Hombres?
Info on FP	Que oportunidades existen para los diferentes comunidades de informar se sobre PF?	Mientras una consulta de salud materna/reproductiva? Información ESPONTANEA? Actividades para que la información llega a las aldeas? Medico ambulatorio? Promoción femenina? Platicas?
	Que problemas usted enfrente cuando da información sobre PF?	Necesidad de doctor femenino? Problemas de comunicación? Idioma? Nivel de educación o instrucción? Tabu?
FP service delivery	Cuales servicios de PF existen para la gente de las aldeas?	Médicos ambulatorios? Promotores/guardianes de salud? Comadronas? Puestos de salud? Centro de salud?
The clients' needs	Que son las necesidades en salud reproductiva más urgentes en los diferentes comunidades? Diferentes servicios necesarios para las diferentes comunidades?	Morbilidad materna/infantil? Solicitudes de aborto...? SIDA? Necesidad insatisfecha? PF para espaciar o limitar? Que tal con los jóvenes? Que tal con los hombres? Vale la peina de hablar con mujeres indígenas sobre PF?

FP services OPINION	Que piensa usted de los servicios de PF en la área Ch'orti?	Métodos fácilmente disponibles? Falta de opciones? Falta de actividades en las aldeas? Días de la semana restrictos (para los servicios de SR)? Costo? Seguimiento de los pacientes? Falta de métodos (stock-out)? Falta de entrenamiento? Hay tiempo para hablar de PF durante las consultas?
	Como se podría mejorar los servicios de PF?	

AUDIT FOR THE APROFRAM providers and PHARMACY:

- 1. By samples of all the methods available and register price.**
- 2. Check/ask for opening and closing hours:**
 Opening time:
 Closing time:
- 3. Is there a sign announcing that FP services are available?**
 Yes
 No
- 4. Which IEC material is available in this clinic? (Tick)**
 Brochure
 Pamphlet
 Poster
- 5. Are the following conditions present in the examination area? (Tick)**
 Auditory privacy
 Visual privacy
 Cleanliness
 Adequate light
 Adequate water
- 6. Does the unit usually provide each of the following contraceptive methods? (Tick)**
 Combined pill
 Progesterone only-pill
 IUD
 Injectables
 NORPLANT
 Condom

Diaphragm
Vaginal tablets

7. Does the health facility usually provide the following services or counselling? (Tick)

Female sterilization
Vasectomy
Natural FP
Exclusive breastfeeding
Emergency contraception

8. For each commodity are the storage facilities protected from rain/wind/rats?

Yes
No

9. Are clients' record cards kept in this clinic (Tick)?

By the client
Yes, in clinic
No cards

10. How many times in the last six months has a supervisor come to this FP unit for supervisory purposes?

...times

11. What does the supervisor do when he comes to visit this clinic? (Tick)

Observe delivery of FP services
Inquire about service problems
Examine the records
Make suggestions for improvements
Other

12. How many clients received the FP in the past 12 months:

New clients:
Repeat clients:

Muchísimas gracias por aceptar de participar en este estudio!!!

Annex III.5

Discussion guide for focus group discussions with community members, Jocotán 2004

1. *INTRODUCTION*
2. *COLLECT INDIVIDUAL INFO*

Hola, bienvenidos a todos y gracias por venir. Yo me llamo Sofie De Broe y soy de la **Universidad de Southampton en Inglaterra**. Yo soy **Belga** y estuve trabajando con las Hermanas de la Anunciacion durante varios años (1991, 1992, 1993, 1994, 2000, 2001) en el Dispensario 'Bethania'. Ahora soy estudiante en la universidad y estoy haciendo mi doctorado. Hace tres años (**2001**) **hice un estudio** sobre la salud reproductiva en Jocotán. De este estudio salio que las mujeres de Jocotán que se consideran indígenas usan otros servicios de salud reproductiva que las mujeres que se consideran *ladinas*. Ahora quiero investigar cuales son las razones detrás de esta observación. El **objetivo de este estudio** es de mejorar los servicios de salud reproductiva disponibles en Jocotán y adaptarlos a las necesidades de las diferentes comunidades. Ustedes son los representantes de estas comunidades y me interesa conocer sus experiencias con los servicios de salud reproductiva. Quiero acentuar que soy una investigadora independiente y no trabajo por ningun servicio de salud de Jocotán. Sin embargo, los resultados seran muy utiles para los miembros de la comunidad que trabajan en los servicios de salud. Es por esto que **su participación es muy valiente** para el éxito de este estudio. También les quiero asegurar que las conversaciones que tendran lugar en este cuarto seran **confidenciales**. En la discusión **no hay respuestas falsas o correctas**, es importante que ustedes discutan los temas de una manera libre y abierta. Para facilitar mi tarea voy a **usar la grabadora** para no perder lo que ustedes se comunican. La discusión tardara **una hora y media**. Tiene alguna **pregunta para mi?**

Antes de seguir quiero saber si estan **de acuerdo de participar** a este grupo de discusión?

Les quiero **agradecer** por su participación y les aseguro otra vez que los resultados de este estudio **seran confidenciales**.

Ahora les explico algunas **reglas** que deberian de respetar:

- Hablar uno por uno
- No interrumpir el otro
- Hablar despacio y claramente
- Hablar libremente
- Respetar la confidencialidad: todo lo que se dice adentro de este cuarto es confidencial.
- Hablar se indicando la persona con su primer nombre

Ahora, empezamos. Si cada uno de **ustedes se introduce** con su primer nombre, su edad, número de hijos y ocupación. Gracias!
(Personal details of the candidates: **First name, age, marital status, number of children, level of education, occupation**)

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	

Ahora, estoy muy interesada en saber que tipo de servicios de salud los barrios Mitch y Cementerio usan y esto será nuestro sujeto de hoy.

TOPIC	MAIN QUESTION	FOLLOW-UP QUESTION	PROBES
Use of health care services	En donde se va la gente de esta comunidad en caso de enfermedad? Cuales servicios de salud son lo mas popular/mas usados?	Otros servicios?	Bethania? Promotor de salud? Guardian? Curandero? Medico ambulatorio? Medico privado?
Use of RH care services	Que servicios de salud reproductiva (consulta prenatal, postnatal y PF) las mujeres de su comunidad usan?	Donde se van las mujeres para su control de embarazo y su control postnatal? Donde las mujeres de su comunidad dan luz en general?	Bethania? Centro de salud? Comadrona?
Perceptions of the health services	Porque se usan estos servicios (usados)? Que les gusta/no les gusta de estos servicios?		Barato? Cerca? Confianza? Conocidos?
Use and perceptions of the GHC	Que servicios de salud reproductiva están disponibles/se ofrecen al centro de salud? Que (no) les gusta del centro de salud?	También se ofrece servicios de PF en el centro de salud? Los doctores y enfermeras les tratan bien?	

Attitudes towards FP	Se acepta el uso de PF (métodos para espaciar o evitar el embarazo) en su comunidad?	<p>Que piensa la gente de PF?</p> <p>La gente habla de PF en su comunidad?</p> <p>Hay necesidad en esta comunidad para PF?</p> <p>Les gustaría saber más sobre PF?</p>	<p>Familia?</p> <p>Esposo?</p> <p>Dios?</p>
Use of FP	<p>Que hace una pareja de su comunidad para espaciar o retrasar el embarazo/tener otro hijo?</p> <p>Que métodos de PF son los mas populares en su comunidad?</p>	<p>También se usa métodos naturales?</p>	<p>Hierbas?</p> <p>Ritmo?</p> <p>Abstinencia?</p>
FP services	Que tipo de servicios de PF existen en esta comunidad?	<p>Que son los fuentes de información sobre PF mas importantes para su comunidad?</p> <p>Donde la gente se va en general para obtener PF?</p> <p>Cual métodos están disponibles y donde?</p>	<p>APROFAM?</p> <p>Farmacias?</p> <p>Bethania?</p> <p>Métodos modernos?</p> <p>Esterilizacion?</p>

	Que se podría hacer para mejorar los servicios de PF en esta comunidad?	A través quien les gustaria recibir PF? Donde les gustaría tener servicios de PF?	Doctor/enfermera femenino? <i>Comadrona?</i> Promotor? Guardian? Esposo? Hermanas?
--	---	--	---

3. FURTHER PARTICULARS

Questions?	
Summarize what has been said	
Debriefing	Se sentían incluidos en la discusión? Se sentian cómodos con el sujeto? El sujeto ha sido completamente cubierto? Que sujetos se tendrian que discutir en otros grupos?
Refreshments and gifts/money	

NOTES (TO BE TAKEN AFTER FGD)

Use of the GHC	
Services at the GHC	
Knowledge and use of FP	
FP services	
OPINION	

Annex III.6

Inventory of the family planning services at the governmental health centre, Jocotán 2004

[This inventory should be completed by observing the facilities that are available and through discussions with the person in charge of maternal and child health/family planning on the day of the visit. In all cases, verify that the items exist by actually observing them yourself-if you are not able to observe them, then code accordingly. Remember that the objective is to identify the equipment and facilities that currently exist and not to evaluate the performance of the staff or clinic. For each item, circle the response or describe, as appropriate.]

Centro de salud de Jocotán, governmental rural health centre

Jocotán, Chiquimula

Date when the inventory has been done:

1. What is the official opening time for this health facility?	-----AM -----PM	
2. At what time did the first FP client arrive today?	-----AM -----PM 99= Not observed	
3. What is the official closing time for this health facility?	-----AM -----PM	
4. How many days per week are FP services offered at this health facility?	-----days per week	
5. OBSERVE: Is there a sign announcing that FP services are available?	Outside Inside No sign	
6. Is (Read 1-13) usually available to clients at this facility?		
	Tick	Which week days?
1. Family planning		
2. Pre-natal care		
3. Maternal and delivery care		
4. Post-natal care		
5. Diagnosis and prevention of STI/AIDS		
6. Aids related consultations		
7. Aids tests		
8. Immunisation		
9. Growth observation		
10. Infertility treatment		
11. Oral rehydration treatment		
12. Treatment of incomplete abortions		
13. Nutritional treatment		
14. General health care of adults		
15. General health care of children		
16. Other		
17. Other		

7. Are there reproductive health services which are offered only certain days of the week?		
1. Yes		
2. No		
8. Which ones are they?		
9. OBSERVE: On the day of the visit, does the centre have the following:	Tick if present	
1. Piped running water		
2. Electricity		
3. Working toilets/latrines for clients		
4. Sufficient seating for clients		
10. How many (read 1-7) are assigned to work full time at this centre?	Number	On duty today?
1. Medical doctor		
2. Nurse		
3. Nurse-midwife		
4. CBD		
5. MCH assistant		
6.		
7.		
11. OBSERVE: Which IEC materials are available in this unit?	Poster	Pamphlet/flip chart
1. FP		
2. Ante/postnatal care		
3. Delivery services		
4. HIV/AIDS		
5. EST		
6. Child welfare		
7. Nutrition		
12. Was a health talk organised in the last month?	Yes No	
13. (if yes) Which topics did it include?	Tick if topic included	
1. Family planning		
2. Pre-natal care		
3. Maternal and delivery care		
4. Post-natal care		
5. Diagnosis and prevention of STI/AIDS		
6. Aids related consultations		
7. Aids tests		
8. Immunisation		
9. Growth observation		
10. Infertility treatment		
11. Oral rehydration treatment		
12. Treatment of incomplete abortions		
13. Nutritional treatment		
14. General health care of adults		
15. General health care of children		
16. Other		
17. Other		

14. OBSERVE: Are the following conditions present in the examination area?	Tick if present	
1. Auditory privacy		
2. Visual privacy		
3. Cleanliness		
4. Adequate light		
5. Adequate water		
15. Does the centre usually provide each of the following FP methods (read 1-9 and CIRCLE)	Check physically if available today	Stock-out in last 6 months?
1. Combined pill		
2. Progestin-only pill		
3. IUD		
4. Injections		
5. NORPLANT		
6. Condom		
7. Diaphragm		
8. Spermicidal		
9. Other		
16. Does the health facility usually provide the following services or counselling? (Read 1-6)	Tick if provided	
1. Female sterilisation		
2. Vasectomy		
3. Natural FP counselling		
4. Exclusive breastfeeding		
5. Dual method counselling		
6. Emergency contraception		
17. Is any laboratory testing for STD's, HIV or pregnancy offered?	Yes No	
18. If yes, for which of the following items (read 1-7) is there a test provided OR are specimens of the clients collected?	Tick if test available	Tick if specimens collected and sent
1. Syphilis		
2. Gonorrhoea		
3. Chlamydia		
4. HIV		
5. Candida		
6. Cervical cancer		
7. Pregnancy		
19. Does the health centre usually provide the following immunization services (Read 1-6)?	Tick if usually provided	Stock-out in the last 6 months?
1. BCG		
2. Polio		
3. DPT		
4. Measles		
5. Hepatitis B		
6. Tetanus for ANC clients		

20. Is there a written inventory for the following commodities (Read 1-4)?	Tick if yes	Are they stored by expiry date?
1.FP contraceptives		
2. Drugs for STD treatment		
3. Vaccines		
4. Other medicines		
21. Are the above items protected from rain, dust, rats and pests?	Yes No	
22. How are the clients' record cards maintained at this facility?		
1. Kept in clinic		
2. Kept by client		
3. No cards		
4. Other:		
23. OBSERVE In what condition is the record-card system?		
1. Well ordered		
2. Partially ordered		
3. Disordered, not usable		
24. Are service statistics reports for FP sent to a supervisor or higher unit?	Yes No	
25. How many times in the last 6 months has a supervisor come to this MCH/FP clinic for supervisory purposes?	-----times	
26. When visiting the facility, what does the supervisor do?	Tick if mentioned	
1. Observe delivery of different services		
2. Observe only service where he is responsible for		
3. Inquire about service problems		
4. Examine the records		
5. Make suggestions for improvements		
6. Offer praise for good work		
7. Other:		
27. How many clients received the following services in the past 12 months?	New clients	Repeat clients
1. FP		
2. Antenatal care		
3. Delivery services		
4. Postnatal services		
5. HIV/AIDS services		
6. STD services		
7. Child welfare		
28. For which health care services is there a charge?	Quetzals	
1.		
2.		
3.		
4.		
5.		
6.		

Annex III.7

Sift questionnaire for the selection of participants in the focus group discussions, Jocotán 2004

Encuesta de seleccion

Hola, me llamoy estamos haciendo entrevistas que forman parte de un estudio sobre salud reproductiva. Esta encuesta se hace por los investigadores de la Universidad de Southampton de Inglaterra. Le puedo hacer algunas preguntas?

1. Sexo:
2. Edad:
3. Cual es su estado matrimonial?:
4. Tiene hijos?: SI/NO

Si la mujer/el hombre tiene entre 20-40 anos, si esta casada/o

o en union y tiene hijos, pidele lo siguiente:

Los investigadores van a organizar un grupo de discusion sobre el tema de salud reproductiva y los servicios de salud aquí en Jocotan. La discusión sera anonimo y confidential y se organiza con un grupo de 8-10 mujeres o hombres como usted. Los participantes reciben refrescos y una remuneración. Le gustaria participar en este estudio? Le quiero confirmar que la discusión sera confidential y no se necesita conocimiento particular. Estamos más que todo interesados en las opiniones y las experiencias de esta comunidad.

Si la mujer/el hombre esta de acuerdo:

Me puede dar su nombre?:

Usted puede llegar al centro Payaqui el sábado/domingo al las...horas?

Annex III.8

Hierarchy of coding labels used in the qualitative data analysis, Jocotán 2004

Access	Specific coding labels
Geographical	Access
Economic	Costs FP Cost of reproductive or general health
Administrative	Mismanagement
Cognitive	Lack of information
Psycho-social	Customs/traditions/beliefs
Quality of care at the service unit	
Choice of methods	Method offer/options
Information to clients	Distribution of information Lack of info Information about Depoprovera/pill Info natural FP Promotion Time constraints
Technical competence	Lack of knowledge provider
Interpersonal relations	Language barriers Quality of care Trust provider
Appropriate constellation of services	Constellation of services Delivery of FP services Delivery of reproductive health Delivery of general health Lack of privacy Under-use resources
Follow-up	Referral/follow-up Stock-out
Medical barriers	
Outdated contraindications	
Eligibility barriers	Eligibility criteria Husbands' consent
Process hurdles	Mismanagement
Service providers qualifications	Training
Provider bias	Condoms for men Women for FP Husbands' consent
Inappropriate management of side effects	

Regulatory barriers	Lack of funding Law versus practise Policies Time constraints
Providers bias for non-medical reasons	Attitude provider Law versus practise Provider bias: access Provider bias: information Provider bias: language Provider bias: method Too many children Town versus <i>aldeas</i>
Other topics	
Cultural barriers to FP	Church Limited cultural contact Customs/traditions/beliefs Gender issues Machismo Hidden FP Husbands' consent Population group Social pressure
Other barriers to FP	Health concerns Lack of knowledge client
Reproductive health	Home deliveries Midwives' roles Prevalence Reproductive health priorities town Reproductive health priorities <i>aldeas</i>
Socio-economic barriers	Education Socio-economic conditions
FP use	FP prevalence IUD Natural FP
FP priorities	Solutions services Unwanted pregnancies Adolescents Urgent issues