

NATIONAL FAMILY HEALTH SURVEY (NFHS-2)

INDIA

1998–99

KERALA

**International Institute for Population Sciences
Mumbai, India**

**MEASURE *DHS+*, ORC MACRO
Calverton, Maryland, USA**

December 2001

**Suggested citation: International Institute for
Population Sciences (IIPS) and ORC Macro. 2001.
*National Family Health Survey (NFHS-2), India,
1998–99: Kerala. Mumbai: IIPS.***

For additional information about the National Family Health Survey (NFHS-2), please contact:

**International Institute for Population Sciences
Govandi Station Road, Deonar, Mumbai-400 088
Telephone: 5564883, 5563254, 5563255, 5563256
Fax: 5563257
E-mail: iipsnfhs@vsnl.com
Website: <http://www.nfhsindia.org>**

NFHS-2 data sets for this state can be obtained from the website listed above.

CONTRIBUTORS

Parveen Nangia
Sunita Kishor
P. S. Nair
D. Radha Devi
S. Irudaya Rajan
Rajeshri Chitanand

CONTENTS

	Page
Tables	v
Figures.....	ix
Preface.....	xi
Acknowledgements.....	xiii
Fact Sheet, Kerala.....	xvi
Summary of Findings.....	xvii

CHAPTER 1 INTRODUCTION

1.1	Background of the Survey.....	1
1.2	Basic Socioeconomic and Demographic Features of Kerala.....	1
1.3	Questionnaires.....	3
1.4	Survey Design and Sample Implementation.....	5
	Sample Size and Reporting Domains	5
	Sample Design	5
	Sample Selection in Rural Areas	5
	Sample Selection in Urban Areas	7
	Sample Weights	8
	Sample Implementation	9
1.5	Recruitment, Training, and Fieldwork.....	10
1.6	Data Processing.....	11

CHAPTER 2 BACKGROUND CHARACTERISTICS OF HOUSEHOLDS

2.1	Age-Sex Distribution of the Household Population	13
2.2	Marital Status.....	15
2.3	Household Composition	18
2.4	Educational Level	20
2.5	Housing Characteristics	24
2.6	Lifestyle Indicators	28
2.7	Availability of Facilities and Services to the Rural Population.....	30

CHAPTER 3 BACKGROUND CHARACTERISTICS OF RESPONDENTS

3.1	Background Characteristics	33
3.2	Educational Level	35
3.3	Age at First Marriage.....	36
3.4	Exposure to Mass Media.....	38
3.5	Women's Employment	39
3.6	Women's Autonomy.....	41
3.7	Women's Educational Aspirations for Children.....	45
3.8	Domestic Violence: Attitudes and Prevalence.....	46

CHAPTER 4 FERTILITY AND FERTILITY PREFERENCES

4.1	Age at First Cohabitation	53
4.2	Current Fertility Levels	55
4.3	Fertility Differentials and Trends.....	57
4.4	Children Ever Born and Living.....	61
4.5	Birth Order	63
4.6	Birth Intervals	63
4.7	Age at First and Last Birth.....	66
4.8	Postpartum Amenorrhoea, Abstinence, Insusceptibility, and Menopause	67
4.9	Desire for More Children.....	69
4.10	Ideal Number of Children	74
4.11	Sex Preference for Children.....	76
4.12	Fertility Planning	78

CHAPTER 5 FAMILY PLANNING

5.1	Knowledge of Family Planning Methods	81
5.2	Contraceptive Use.....	83
	Ever Use of Family Planning Methods.....	83
	Current Use of Family Planning Methods	84
	Socioeconomic Differentials in Current Use of Family Planning Methods.....	87
	Number of Living Children at First Use of Contraception.....	90
	Problems with Current Method.....	91
5.3	Timing of Sterilization.....	92
5.4	Sources of Contraceptive Methods	93
5.5	Reasons for Discontinuation/Non-Use of Contraception	96
5.6	Future Intentions Regarding Contraceptive Use.....	98
5.7	Exposure to Family Planning Messages	102
5.8	Discussion of Family Planning.....	104
5.9	Need for Family Planning.....	106

CHAPTER 6 MORTALITY, MORBIDITY, AND IMMUNIZATION

6.1	Crude Death Rates and Age-Specific Death Rates	110
6.2	Infant and Child Mortality	111
	Assessment of Data Quality.....	111
	Levels, Trends, and Differentials in Infant and Child Mortality	113
	Socioeconomic Differentials in Infant and Child Mortality	114
	Demographic Differentials in Infant and Child Mortality	116
6.3	Morbidity	118
	Asthma	118
	Tuberculosis.....	118
	Jaundice.....	120
	Malaria	120

	Page
6.4	Child Immunization120
6.5	Vitamin A Supplementation128
6.6	Child Morbidity and Treatment130
	Acute Respiratory Infection.....130
	Fever130
	Diarrhoea.....132
6.7	HIV/AIDS135
	Knowledge of AIDS135
	Source of Knowledge About AIDS137
	Knowledge of Ways to Avoid AIDS137

CHAPTER 7 NUTRITION AND THE PREVALENCE OF ANAEMIA

7.1	Women’s Food Consumption141
7.2	Nutritional Status of Women143
7.3	Anaemia Among Women145
7.4	Infant Feeding Practices.....148
7.5	Nutritional Status of Children.....154
7.6	Anaemia Among Children158
7.7	Iodization of Salt.....160

CHAPTER 8 MATERNAL AND REPRODUCTIVE HEALTH

8.1	Antenatal Problems and Care.....164
	Problems During Pregnancy165
	Antenatal Check-Ups165
	Number and Timing of Antenatal Check-Ups166
	Components of Antenatal Check-Ups169
	Tetanus Toxoid Vaccination.....170
	Iron and Folic Acid Supplementation.....172
8.2	Delivery Care173
	Place of Delivery.....173
	Assistance During Delivery176
	Delivery Characteristics.....176
8.3	Postnatal Care177
	Postpartum Complications.....178
8.4	Reproductive Health Problems179

CHAPTER 9 QUALITY OF CARE

9.1	Source of Health Care for Households185
9.2	Contacts at Home with Health and Family Planning Workers187
9.3	Quality of Home Visits189
9.4	Matters Discussed During Home Visits or Visits to Health Facilities.....190
9.5	Quality of Services Received at the Most Recent Visit to a Health Facility191

	Page
9.6 Family Planning Information and Advice Received.....	193
9.7 Availability of Pills and Condoms.....	193
9.8 Person Motivating Users of a Modern Contraceptive Method.....	194
9.9 Quality of Care of Family Planning Services.....	195
REFERENCES.....	199
 APPENDICES	
Appendix A Estimates of Sampling Errors.....	207
Appendix B Data Quality Tables.....	217
Appendix C Kerala NFHS-2 Staff.....	225
Appendix D Survey Instruments.....	231

TABLES

	Page
Table 1.1	Sampling stratification.....6
Table 1.2	Sample results.....10
Table 2.1	Household population by age and sex.....14
Table 2.2	Population by age and sex from the SRS and NFHS-2.....15
Table 2.3	Marital status of the household population.....16
Table 2.4	Singulate mean age at marriage.....18
Table 2.5	Household characteristics.....19
Table 2.6	Educational level of the household population.....20
Table 2.7	School attendance.....23
Table 2.8	Reasons for children not currently attending school.....23
Table 2.9	Housing characteristics.....25
Table 2.10	Household ownership of agricultural land, house, and livestock.....26
Table 2.11	Household ownership of durable goods and standard of living.....28
Table 2.12	Lifestyle indicators.....29
Table 2.13	Distance from the nearest health facility.....30
Table 2.14	Availability of facilities and services.....31
Table 3.1	Background characteristics of respondents.....34
Table 3.2	Respondent's level of education by background characteristics.....36
Table 3.3	Age at first marriage.....37
Table 3.4	Exposure to mass media.....38
Table 3.5	Employment.....40
Table 3.6	Household decisionmaking.....42
Table 3.7	Women's autonomy.....44
Table 3.8	Perceived educational needs of girls and boys.....45
Table 3.9	Reasons given for justifying a husband beating his wife.....47
Table 3.10	Women's experience with beatings or physical mistreatment.....49
Table 3.11	Frequency of beatings or physical mistreatment.....51
Table 4.1	Age at first cohabitation with husband.....54
Table 4.2	Current fertility.....55
Table 4.3	Fertility by background characteristics.....58
Table 4.4	Fertility trends.....60

	Page
Table 4.5	Fertility by marital duration.....61
Table 4.6	Children ever born and living62
Table 4.7	Birth order.....64
Table 4.8	Birth interval.....65
Table 4.9	Median age at first birth.....66
Table 4.10	Age at last birth.....67
Table 4.11	Postpartum amenorrhoea, abstinence, and insusceptibility68
Table 4.12	Menopause.....69
Table 4.13	Fertility preferences70
Table 4.14	Desire to have no more children by background characteristics73
Table 4.15	Ideal and actual number of children74
Table 4.16	Ideal number of children by background characteristics75
Table 4.17	Indicators of sex preference.....77
Table 4.18	Fertility planning.....79
Table 4.19	Wanted fertility rates80
Table 5.1	Knowledge of contraceptive methods.....82
Table 5.2	Ever use of contraception83
Table 5.3	Current use of contraception.....85
Table 5.4	Current use by background characteristics88
Table 5.5	Number of living children at first use.....90
Table 5.6	Problems with current method.....91
Table 5.7	Timing of sterilization93
Table 5.8	Source of modern contraceptive methods.....94
Table 5.9	Reasons for discontinuation/non-use.....97
Table 5.10	Future use of contraception.....99
Table 5.11	Reasons for not intending to use contraception.....100
Table 5.12	Preferred method.....101
Table 5.13	Exposure to family planning messages.....103
Table 5.14	Discussion of family planning.....105
Table 5.15	Need for family planning services.....107
Table 6.1	Age-specific death rates and crude death rates.....110
Table 6.2	Infant and child mortality.....113

	Page
Table 6.3	Infant and child mortality by background characteristics.....115
Table 6.4	Infant and child mortality by demographic characteristics.....116
Table 6.5	Morbidity119
Table 6.6	Childhood vaccinations by source of information.....122
Table 6.7	Childhood vaccinations by background characteristics.....124
Table 6.8	Childhood vaccinations received by 12 months of age126
Table 6.9	Source of childhood vaccinations127
Table 6.10	Vitamin A supplementation for children129
Table 6.11	Prevalence of acute respiratory infection, fever, and diarrhoea131
Table 6.12	Knowledge of diarrhoea care133
Table 6.13	Source of ORS packets134
Table 6.14	Source of knowledge about AIDS136
Table 6.15	Knowledge about avoidance of AIDS138
Table 7.1	Women’s food consumption.....141
Table 7.2	Women’s food consumption by background characteristics142
Table 7.3	Nutritional status of women.....144
Table 7.4	Anaemia among women147
Table 7.5	Initiation of breastfeeding.....150
Table 7.6	Breastfeeding status by child’s age.....151
Table 7.7	Type of food received by children.....152
Table 7.8	Median duration of breastfeeding.....153
Table 7.9	Nutritional status of children by demographic characteristics.....156
Table 7.10	Nutritional status of children by background characteristics.....157
Table 7.11	Anaemia among children159
Table 7.12	Iodization of salt162
Table 8.1	Health problems during pregnancy.....165
Table 8.2	Antenatal check-ups.....167
Table 8.3	Number and timing of antenatal check-ups and stage of pregnancy168
Table 8.4	Components of antenatal check-ups169
Table 8.5	Tetanus toxoid vaccination and iron and folic acid tablets or syrup171

	Page
Table 8.6	Place of delivery174
Table 8.7	Assistance during delivery.....175
Table 8.8	Characteristics of births177
Table 8.9	Symptoms of postpartum complications.....178
Table 8.10	Symptoms of reproductive health problems180
Table 8.11	Treatment of reproductive health problems.....183
Table 9.1	Source of health care.....186
Table 9.2	Home visits by a health or family planning worker.....188
Table 9.3	Quality of home visits.....189
Table 9.4	Matters discussed during contacts with a health or family planning worker190
Table 9.5	Quality of care during the most recent visit to a health facility.....192
Table 9.6	Family planning discussions with a health or family planning worker193
Table 9.7	Availability of regular supply of condoms194
Table 9.8	Motivation to use family planning.....194
Table 9.9	Discussions about alternative methods of family planning196
Table 9.10	Information on side effects and follow-up for current method.....197

Appendix A

Table A.1	List of selected variables for sampling errors, Kerala, 1999209
Table A.2	Sampling errors, Kerala, 1999210

Appendix B

Table B.1	Household age distribution218
Table B.2	Age distribution of eligible and interviewed women.....219
Table B.3	Completeness of reporting219
Table B.4	Births by calendar year.....220
Table B.5	Reporting of age at death in days.....221
Table B.6	Reporting of age at death in months222

FIGURES

	Page
Figure 2.1	Population Pyramid 14
Figure 3.1	Percentage of Women Participating in Different Household Decisions and Percentage with Access to Money 43
Figure 4.1	Age-Specific Fertility Rates by Residence 56
Figure 4.2	Age-Specific Fertility Rates, NFHS-1 and NFHS-2 57
Figure 4.3	Total Fertility Rate by Selected Background Characteristics 59
Figure 4.4	Fertility Preferences Among Currently Married Women 72
Figure 5.1	Current Use of Family Planning by Residence, NFHS-1 and NFHS-2 86
Figure 5.2	Sources of Family Planning Among Current Users of Modern Contraceptive Methods 96
Figure 6.1	Infant Mortality Rates for Five-Year Periods by Residence 114
Figure 6.2	Infant Mortality Rates by Selected Demographic Characteristics 117
Figure 6.3	Percentage of Children Age 12–23 Months Who Have Received Specific Vaccinations 123
Figure 6.4	Percentage of Children Age 12–23 Months Who Have Received All Vaccinations 125
Figure 6.5	Source of Childhood Vaccinations by Residence 128
Figure 7.1	Anaemia Among Women 148
Figure 7.2	Stunting Among Children Under Three Years by Mother’s Education and SLI 158
Figure 7.3	Anaemia Among Children 160
Figure 8.1	Problems During Pregnancy 166
Figure 8.2	Place of Delivery and Assistance During Delivery 173
Figure 8.3	Reproductive Health Problems Among Currently Married Women 182
Figure 9.1	Home Visits by a Health or Family Planning Worker by Selected Background Characteristics 187
Figure 9.2	Motivator for Current Users of Modern Contraceptive Methods 195

PREFACE

The success of the first National Family Health Survey, conducted in 1992–93, in creating an important demographic and health database in India has paved the way for repeating the survey. The second National Family Health Survey (NFHS-2), undertaken in 1998–99, is designed to strengthen the database further and facilitate implementation and monitoring of population and health programmes in the country. As in the earlier survey, the principal objective of NFHS-2 is to provide state and national estimates of fertility, the practice of family planning, infant and child mortality, maternal and child health, and the utilization of health services provided to mothers and children. In addition, the survey provides indicators of the quality of health and family welfare services, women's reproductive health problems, and domestic violence, and includes information on the status of women, education, and the standard of living.

Another feature of NFHS-2 is measurement of the nutritional status of women. Height and weight measurements, which were available only for young children in the earlier survey, were extended to cover all eligible women in NFHS-2. In addition, ever-married women and their children below age three had their blood tested for the level of haemoglobin, using the HemoCue instrument. Through these blood tests, for the first time the survey provides information on the prevalence of anaemia throughout India. In two metropolitan cities, Delhi and Mumbai, a further test was done for children below age three to measure the lead content in their blood. The survey also measured the extent to which households in India use cooking salt that has been fortified with iodine.

The NFHS-2 survey was funded by the United States Agency for International Development (USAID) through ORC Macro, USA. UNICEF provided additional financial support for the nutritional components of the survey. The survey is the outcome of the collaborative efforts of many organizations. The International Institute for Population Sciences (IIPS) was designated as the nodal agency for this project by the Ministry of Health and Family Welfare, Government of India, New Delhi. Thirteen reputed field organizations (FOs) in India, including five Population Research Centres, were selected to carry out the houselisting operation and data collection for NFHS-2. The field organization for Kerala was the ORG Centre for Social Research, New Delhi. ORC Macro, Calverton, Maryland, USA, and the East-West Center, Honolulu, Hawaii, USA, provided technical assistance for all survey operations.

The NFHS-2 survey covered a representative sample of about 90,000 eligible women age 15–49 from 26 states that comprise more than 99 percent of India's population. The data collection was carried out in two phases, starting in November 1998 and March 1999. The survey provides state-level estimates of demographic and health parameters as well as data on various socioeconomic and programmatic factors that are critical for bringing about desired changes in India's demographic and health situation. The survey provides urban and rural estimates for most states, regional estimates for five states (Bihar, Jammu and Kashmir, Madhya Pradesh, Rajasthan, and Uttar Pradesh), separate estimates for three metro cities (Chennai, Kolkata, and Mumbai), and estimates for slum areas in Mumbai.

The survey used uniform questionnaires, sample designs, and field procedures to facilitate comparability of the data and to achieve a high level of data quality. Preliminary reports with selected results were prepared earlier for each state and presented to policymakers and

programme administrators responsible for improving health and family welfare programmes in most states.

The final state reports are based on a standard tabulation plan developed at a workshop held in Kodaikanal on 15–17 January 1999. IIPS finalized the tabulation plan according to the recommendations of the NFHS-2 Technical Advisory Committee and produced the tables and figures for the final reports. In most states, the final state reports were written by representatives of the Population Research Centres, faculty members from IIPS, representatives from ORC Macro and the East-West Center, and reputed researchers from other organizations in the field of population and health in India. Each report has been reviewed by an Indian expert in the field of population sciences.

We are happy to present the final NFHS-2 state report for Kerala, which was covered in the second phase of the survey. We hope that the report will provide helpful insights into the changes that are taking place in the state and will provide policymakers and programme managers with up-to-date estimates of indicators that can be used for effective management of health and family welfare programmes, with an emphasis on reproductive health dimensions. The report should also contribute to the knowledge of researchers and analysts in the fields of population, health, and nutrition.

T.K. Roy
Director
International Institute for
Population Sciences
Mumbai

ACKNOWLEDGEMENTS

The second National Family Health Survey was successfully completed due to the efforts and involvement of numerous organizations and individuals at different stages of the survey. We would like to thank everyone who was involved in the survey and made it a success.

First of all, we are grateful to the Ministry of Health and Family Welfare, Government of India, New Delhi, for its overall guidance and support during the project. Mr. Y.N. Chaturvedi and Mr. K.S. Sugathan, the then Secretary and Joint Secretary, respectively, at the Department of Family Welfare deserve special thanks. They initiated the project and designated the International Institute for Population Sciences (IIPS) as the nodal agency for the survey. They also formed the Steering Committee, the Administrative and Financial Management Committee, and the Technical Advisory Committee for the smooth and efficient functioning of the project. Special thanks are due to Mr. A.R. Nanda, the present Secretary of the Department of Family Welfare, who continued to take an active interest in the project and provided timely guidance and support. The contributions of Mr. Vijay Singh, Joint Secretary (FA), Ms. Meenakshi Dutta Ghosh, Joint Secretary (S), Mr. Gautam Basu, Joint Secretary (RCH), Mr. P.K. Saha, Chief Director (S), and Dr. K.V. Rao, Chief Director (S), are acknowledged with gratitude.

We gratefully acknowledge the immense help received from the Office of the Registrar General, India, New Delhi (particularly Dr. M. Vijayanunni, the then Registrar General of India, Mr. J.K. Banthia, the present Registrar General of India, Mr. S.P. Sharma, Consultant, and Mr. S.K. Sinha, Deputy Registrar General, Vital Statistics) in implementing the sample design and making the latest SRS results available to cite in the reports. We thank all the expert participants in the series of workshops to finalize the questionnaire design, the sample design, and tabulation plans for the survey. Special mention and thanks are due to Dr. Vijay Verma for his expert advice on the sample design and the calculation of sample weights.

We are grateful to the Directorate of Census Operations, Directorate of Health Services, and Office of the Integrated Child Development Scheme, Maharashtra, for their support in conducting training of trainers for the houselisting operations and the training of health investigators.

We are thankful to the Department of Health and Family Welfare, Government of Kerala, for helping the field organization by providing logistic assistance, whenever possible. Special thanks go to the local officials in all of the sample areas for facilitating the data collection.

The United States Agency for International Development (USAID) provided generous funding for NFHS-2. USAID's contribution to the project is sincerely acknowledged. Special thanks are due to Mr. William Goldman, the former Director of the Office of Population, Health and Nutrition (PHN), USAID, New Delhi, Ms. Sheena Chhabra, Team Leader, Policy, Research, Evaluation, and Marketing (PHN), and Dr. Victor K. Barbiero, current Director of PHN, for their initiative and involvement in the project. Many thanks are due to UNICEF for providing additional funding for the nutrition component of the project and the most modern medical equipment for carrying out the height-weight measurements and anaemia testing. Special thanks are due to Dr. Sanjiv Kumar, Project Officer (Health), UNICEF, New Delhi, for his earnest cooperation in this respect.

We gratefully acknowledge the help and cooperation given by Dr. Rameshwar Sharma, the then Director, and Dr. Shiv Chandra Mathur, Professor, State Institute of Health and Family Welfare (SIHFW), Jaipur, during the national pretest of the NFHS-2 questionnaires in Rajasthan.

Thanks are due to all the members of the Steering Committee, Administrative and Financial Management Committee, and Technical Advisory Committee for participating in various meetings and providing valuable guidance for the successful execution of the project.

Dr. K.B. Pathak was the Director of IIPS during the development of the project and throughout the first phase of data collection. His immense interest and great assistance to NFHS-2 are gratefully acknowledged. We also acknowledge the invaluable contribution and continuing interest of Dr. Arvind Pandey who helped coordinate the NFHS-2 project for most of the project period.

We appreciate and acknowledge the untiring efforts, interest, and initiative taken by Dr. Fred Arnold, Dr. Sunita Kishor, Mr. Sushil Kumar, Mr. Zaheer Ahmad Khan and Ms. Donna Espeut from ORC Macro, and Dr. Robert D. Retherford and Dr. Vinod K. Mishra from the East-West Center. It is only due to their hard work that NFHS-2 could be completed successfully. Thanks go to Dr. Umesh Kapil, Additional Professor, Department of Human Nutrition, All India Institute of Medical Sciences, New Delhi, for organizing, in collaboration with IIPS, the training programme for the health component of the survey, and to Dr. Almaz Sharman of ORC Macro for assisting with the training programme. We also thank the health coordinators, Dr. Vikash Chandra, Dr. P.V. Kaushik and Dr. Sanjeev P. Walokar, for their involvement in the NFHS-2 nutrition training programme and their sincere supervision of the nutrition component of the survey. We gratefully acknowledge Mr. O.P. Sharma for his able assistance in ensuring the timely printing and distribution of the survey reports.

ORC Macro made available the ISSA (Integrated System for Survey Analysis) computer package for data entry and tabulation. Special thanks go to Mr. Martin Wulfe of ORC Macro for his immense help in the data processing operation, data analysis, and preparation of the tables for NFHS-2 reports and to Dr. Rajib Acharya for his assistance at every stage of the data processing operation and report writing and his maintenance of the NFHS website. Special thanks go to Mr. Somnath W. Choughule, Data Entry Operator, for designing the NFHS website. We gratefully acknowledge the valuable contribution of IIPS Senior Research Officers Dr. Rajeshri Chitanand, Dr. Damodar Sahu, and Dr. Yonah Bhutia, and Research Officers Mr. Praween Kumar Agrawal, Mr. S. Srinivasan, Ms. Y. Vaidehi, and Mr. Nizamuddin Khan. Thanks are also due to the other supporting staff of the project, as well as the Administrative, Accounts, and Library staff of IIPS, for their continuous cooperation during the entire project period.

The difficult task of data collection and data processing in the state of Kerala was successfully carried out by the ORG Centre for Social Research, New Delhi. Our special thanks are due to Mr. C.V.S. Prasad, Survey Director, and the two survey coordinators (Dr. B. P. Thiagarajan and Mr. Shashi Kant Sharma) for successfully coordinating the fieldwork and data processing for the state. Special thanks go to Dr. A.A. Jayachandran, IIPS Research Officer, NFHS-2, for assisting during the training of the field staff and monitoring the data collection in Kerala. This acknowledgement cannot be concluded without expressing appreciation for the hard work put in by the interviewers, health investigators, supervisors, and field editors in collecting data in Kerala.

Thanks are due to Dr. P.S. Nair, Professor and Head, Department of Demography, University of Kerala, Thiruvananthapuram, Kerala, Dr. D. Radha Devi, Professor and Head, Department of Population Policies and Programmes, International Institute for Population Sciences, Mumbai, and Dr. S. Irudaya Rajan, Associate Fellow, Centre for Development Studies, Thiruvananthapuram, Kerala, for their contribution to report writing. We extend our sincere thanks to Dr. K.C. Zachariah, Senior Demographer, World Bank (Rtd.), Washington, D.C., USA and Honorary Fellow, Centre for Development Studies, Thiruvananthapuram, India, for reviewing this report and giving his comments.

Last but not the least, credit goes to the 2,884 ever-married women of Kerala and the household respondents who spent their time and responded to the rather lengthy questionnaires with tremendous patience and without any expectation from NFHS-2.

T.K. Roy
Sumati Kulkarni
Kamla Gupta
Parveen Nangia