

Curriculum Vitae

M. Ataharul Islam

A. Personal Particulars

M. Ataharul Islam

Date of Birth: 12.4.55

QM Husain Professor

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B. Academic and Professional Qualifications

Year	Degree	Discipline	University
1990	Post-doctoral Fellow	Biostatistics, Population	University of Pennsylvania, USA
1984	Doctor of Philosophy	Biostatistics	University of Hawaii, USA
1979	Master of Science	Statistics	Dhaka University, Bangladesh
1977	Bachelor of Science (Honours)	Statistics	Dhaka University, Bangladesh
1972	Higher Secondary Certificate	Science	Notre Dame College, Bangladesh
1970	Secondary School Certificate	Science	Sunamganj Government School, Bangladesh

C. Work Experience

Year	Position	Field of Work	Place of Work
2017-	QM Husain Professor	Statistics	University of Dhaka
2013-2017	Professor	Applied Statistics	East West University
2010-2013	Professor	Statistics	King Saud University
2006-2008	Professor	Mathematical Sciences	Universiti Sains Malaysia
2003-2005	Professor	Statistics	King Saud University,

			Riyadh, Saudi Arabia
1995- 2010	Professor	Statistics	University of Dhaka, Bangladesh
2002-2003	Visiting Faculty	Mathematical Sciences	Universiti Sains Malaysia, Penang, Malaysia
91-93	Visiting Faculty	Biostatistics/Statistics	University of Hawaii, USA
90-91	Post-doctoral Fellow	Biostatistics/Population	University of Pennsylvania, USA
89-95 (including leave from DU during 90-93)	Associate Professor	Statistics/Biostatistics	University of Dhaka
85-89	Assistant Professor	Statistics/Biostatistics	University of Dhaka
85	Post-doctoral Fellow	Population	East-West Center, Hawaii, USA
January 85	Faculty Researcher	Biostatistics	School of Public Health, University of Hawaii
80-85 (including study leave from 81 to 84)	Lecturer	Statistics	Department of Statistics, University of Dhaka
79-80	Lecturer	Statistics	Department of Statistics, Chittagong University

Honour/Award

1. University Grants Commission Awards, 2009, for book and research paper.
2. Ibrahim Memorial Gold Medal Award, University of Dhaka, 2005-2006.
3. Elected Member, International Statistical Institute, 2005.
4. Pauline-Stitt Award as an Outstanding Researcher of the School of Public Health, University of Hawaii, USA, 1984.
5. East-West Center Honor Award as an Outstanding Researcher, 1984.
6. Biometric Society Award for Winning the First Place for Content and Writing in the WNAR Student Paper Competition, 1984.
7. Member of the Honor Society, Phi Kappa Phi, 1984.

PROFESSIONAL EXPERIENCE

7/2013 - Professor, Department of Applied Statistics, East West University, Dhaka, Bangladesh. As a professor of the department, taught courses on Survival Analysis, Generalized Linear Models, Survival Analysis, Regression Analysis, Inference and supervised research students.

3/2014-4/2016 Chairperson, Department of Applied Statistics, East West University. As the Chairperson, initiated Postgraduate Diploma and Masters Program in Actuarial Science for the first time in Bangladesh.

7/2013 Visiting Professor, Universiti Sains Malaysia, Malaysia

1/2013 Visiting Professor, University of Alabama at Birmingham, USA

6/2010 Visiting Professor, Universiti Sains Malaysia, Malaysia

9/2010-6/2013 Professor, Department of Statistics and OR, King Saud University, Riyadh. As a professor of the department, taught courses on Survival Analysis, Generalized Linear Models, Survival Analysis, Regression Analysis, Inference and supervised research students.

2/95 to 9/2010 Professor of Statistics, University of Dhaka. Duties include teaching undergraduate and graduate courses, consulting independent and collaborative research, writing grant proposals. Supervised research works of several PhD and more than 100 MSc research students.

March 1 to March 14, 2009 Visiting Professor, Kuwait University. Conducted a Workshop on Longitudinal Analysis, Presented Paper in Seminar, Provided Help to Faculty Researchers, Developed Two Project Proposals.

June 1 to June 30, 2009 Visiting Professor, School of Mathematical Sciences, Universiti Sains Malaysia, Malaysia.

June 1 to June 30, 2008. Visiting Professor, School of Mathematical Sciences, Universiti Sains Malaysia, Malaysia.

08/06 to 02/08 Professor, School of Mathematical Sciences, Universiti Sains Malaysia.

10/03 to 08/05 Professor, Department of Statistics and OR, King Saud University, Riyadh, Saudi Arabia. Duties included teaching undergraduate and graduate courses, supervising research, conducting research etc.

03/02 to 10/03 Visiting Faculty, Universiti Sains Malaysia, Penang, Malaysia. Duties included teaching and research. Conducted a study on fundamental research on repeated measures under the Fundamental Research Grant Scheme project.

5/2001 to 6/2001 Consultant, Family Planning Logistic Management, John Snow Inc. (JSI) and USAID. Prepared a manuscript on Projected Contraceptive Requirements, 2000-2015 for Bangladesh.

12/3/2000-31/5/2000 International Consultant, UNFPA, Sudan. Analyzed data on Safe Motherhood Survey, 1999 and completed three reports on Khartoum, Sinnar and Western Darfur states.

11/98 to 01/99 International Consultant, UNFPA, Sudan. Analyzed four baseline survey data and completed four reports on reproductive health and family planning for Mayo, Sinnar, Umbaddah and Barbar. These surveys were conducted in order to develop a National Integrated Information System with the technical support from UNFPA. In addition, assisted in the sampling and questionnaire design as well as in editing and finalizing the manual of social indicators.

04/99 to 05/99 Consultant, Family Planning Logistic Management, John Snow Inc. (JSI) and USAID. Prepared a manuscript on Projected Contraceptive Requirements, 1998-2003 for Bangladesh.

04/98 to 04/99 Principal Investigator of a special topic analysis of the 1996-97 Bangladesh Demographic and Health Survey for conducting Secondary Analysis on

Program Performances in Areas Served by GOB, NGOs and Both GOB and NGOs. This study was sponsored by the USAID.

07/98 to 10/98 Worked on a report to suggest modifications of Integrated Multi Purpose Survey (IMPS) Design of BBS. This sampling design is expected to serve as a master sample design for various nationally representative surveys (some of the current and past users of IMPS design are BDHS, Household Expenditure Survey, Health and Demographic Survey, Poverty Monitoring Survey, etc.).

07/96 to 05/97 Chairman, Department of Statistics, University of Dhaka. Responsibilities included-to plan, organize and coordinate the research and routine works as well as to provide leadership in the planning and implementing the development of the department. The department has currently more than 300 students at the undergraduate and about 60 students at the graduate levels. The number of faculty members is 25.

05/96 to 07/96 Member of the Task Force to Recommend an Action Plan to Strengthen the Collection of Economic and Social Data in Bangladesh, formed by the Government of Bangladesh. As a member of the Task Force participated in the preparation of a report 'Institutional Development of Bangladesh Bureau of Statistics (BBS): Action Plan to Strengthen Collection of Economic and Social Data'. Submitted to the Government of Bangladesh.

06/96 Visiting Fellow of the East-West Center, USA. As a Visiting Fellow of the East-West Center conducted research in collaboration with Professor C.B. Park and Dr. Andrew Kantner of the School of Public Health, University of Hawaii and Program on Population, East West Center respectively.

10/95 to 05/96 Principal Investigator of an extended analysis for examining the relationship between infant and child mortality and fertility on the basis of the 1994 Bangladesh Demographic and Health Survey. This project was funded by the East-West Center, USA.

06/95 to 06/96 Member of the National Committee for Implementation Programme of Action of the International Conference on Population and Development' 94. Submitted a report on the Growth of Population and Sustained Economic Development in Bangladesh.

05/95 to 07/95 Consultants for literature review and secondary analysis of the needs assessment of primary health care services in the urban areas of Dhaka. This study was jointly sponsored by the Johns Hopkins University and ICDDR,B. As per contract, reviewed existing literature, provided outline of analysis and conducted analysis and provided a report (worked with Dr. A.H. Baqui and Dr. A.A. Thwin of ICDDR,B).

04/95 to 12/96 Project Advisor of the study on 'Oral Contraceptive Compliance KAP Baseline-Rural Bangladesh' sponsored by USAID and the Population Council and was conducted jointly by the Ministry of Planning (GOB), Department of Statistics (University of Dhaka), FHI (USA) and ACPR. Participated in study design, development of questionnaire, data analysis and report writing.

07/89 to 02/95 Associate Professor of Statistics, University of Dhaka. Duties included teaching undergraduate and graduate courses, consulting, independent and collaborative

research, etc. Taught courses on biostatistics, stochastic processes, estimation, regression analysis, and basic statistics.

07/93 to 07/96 Director, Statistical Research Unit, University of Dhaka. Responsibilities included providing leadership for enhancing research activities in the department of statistics in particular, among the statisticians in Bangladesh in general, through publication of an international journal, publication of working papers and research bulletins, arranging weekly seminars, occasional one day seminars, collaborating research activities with other national and international research organizations, etc.

06/94 Consultant, Pilot Comprehensive Health and Demographic Survey, 1993, Bangladesh Bureau of Statistics. responsibilities included helping in designing questionnaire, master trainer at the training phase, analyzing data, and writing the report.

12/91 to 06/93 Visiting Faculty, Biostatistics Program, Department of Public Health Sciences, University of Hawaii, Duties included teaching graduate courses, consulting, doing independent and collaborative research, etc. Taught graduate courses on longitudinal data analysis, sampling techniques in public health, applied multivariate analysis in health sciences, introduction to biostatistics, and statistical techniques in epidemiological research. Most of these courses were based on extensive use of computer (both PC and mainframe). Most of these courses used SAS programs extensively. Students in the courses on longitudinal data analysis and applied multivariate analysis used data from Honolulu Heart Study Program and other health programs in Hawaii.

09/90 to 12/91 Post-doctoral Fellow at the University of Pennsylvania. Conducted independent and collaborative research on survival analysis with Professor Jane Menken, Director, Population Studies Center, University of Pennsylvania, USA..

06/89 to 06/01 Member, Working Group of the Essential National Health Research, Bangladesh. Contributed to prioritize the health research in Bangladesh.

08/88 to 09/90 Member, Technical Committee of the Bangladesh Bureau of Statistics on Health and Demographic Survey. Contributed in the planning, training, analyzing, and writing stages of the national level health and demographic survey in Bangladesh.

01/88 to 08/88 Coordinator, Secondary Analysis of the Contraceptive Prevalence Survey, 1985, funded by the USAID. Duties included coordinating a group of researchers for publishing a monograph on the findings from this survey, helping them to analyze the data using mainframe and PC's and finally to edit the monograph.

7/87 to present Honorary Scientific Advisor, Research Division, Bangladesh Institute of Research and Rehabilitation in Diabetes, Endocrine and Metabolic Disorders (BIRDEM), Dhaka. Duties included organizing the data on more than 60,000 patients, both baseline and follow-up, and conducting collaborative research.

10/85 to 07/89 Assistant Professor of Statistics, University of Dhaka. Taught undergraduate and graduate courses and conducted independent and collaborative research.

01/85 to 06/85 Post-doctoral Fellow, East-West Center, Honolulu, Hawaii, Conducted

independent and collaborative research on survival analysis.

01/85 Faculty Researcher, School of Public Health, University of Hawaii, Assisted in preparing a report on 'Analysis of Mortality and Morbidity of Native Hawaiians and the Pacific Islanders-Phase VI Contract No. 190-83-0009-Evaluation of Federal Support to Health Systems of the United States Pacific Territories, School of Public Health, University of Hawaii, Honolulu.

02/80 to 10/85 Lecturer in Statistics, University of Dhaka. Duties included teaching undergraduate and graduate courses (on study leave for doing Ph.D. from 8/81 to 6/85).

07/79 to 02/80 Lecturer in Statistics, Chittagong University.

D. Current Research Areas

Repeated Measures, Statistical Modelling, Longitudinal Data Analysis, Generalized Linear Models, Survival Analysis, Multivariate Analysis

E. Research Publications/Books

Books

1. **Islam MA** and **Shiha AA**. *Foundations of Biostatistics*, Springer, Singapore, 2018 (Forthcoming)
2. **Islam MA** and **Chowdhury RI**. *Analysis of Repeated Measures Data*. Springer, Singapore, 2017.
3. **Islam MA**, **Chowdhury RI**, **Huda S**. *Markov Models with Covariate Dependence for Repeated Measures*. Nova Science, New York, 2009.
4. **Huda, S.** and **Islam MA (Eds)**. *Collected Works of QM Husain*. Nova Science, New York, 2012.
5. **Karim, MR** and **Islam MA**. *Reliability and Survival Analysis*. Springer, Singapore, 2018 (Forthcoming).

Book Chapters

Ping HL and **Islam MA**. Analyzing Incomplete Categorical Data: A Logistic Regression Approach. In *New Developments in Applied Statistics*, pp. 275-294, M. Ahsanullah (ed), Nova Science, 2012.

Islam MA and **Chowdhury RI**. First and Higher Order Transition Models with Covariate Dependence (Chapter 4). In *Progress in Applied Mathematical Modeling* F. Yang (ed), Nova Science Publishers, Hauppauge, NY, pp. 153-196, 2008.

Khondoker MMR and **Islam MA**. Test for Proportional Hazards Assumption: An Application to Heart Transplant Data. In *Applied Statistics at the Leading Edge*, M. Ahsanullah (ed), Nova Science, 2003.

Islam MA, **Chowdhury RI**. Limitations of Generalized Estimating Equations: Preliminary Checks for Correct Application to Binary Data. In *Biostatistical Aspects of Health and*

Epidemiology, CM Pandey, P Mishra and U Singh (eds), SGPIM, Lucknow, pp. 167-176, 2002.

Gulshan J and **Islam MA**. An Extension of GEE for Repeated Measures with Polytomous Response. In *Biostatistical Aspects of Health and Epidemiology*, CM Pandey, P Mishra and U Singh (eds), SGPIM, Lucknow, pp. 205-213, 2002.

Islam MA, Hossain MS, Rahman MH. Burden of Morbidity in Bangladesh (Chapter 1). In *Health Situation and Health Care Expenditures in Bangladesh*, W Islam, MM Khan and MS Hossain (eds), Bangladesh Bureau of Statistics, Ministry of Planning, Government of Bangladesh, 1999.

Islam MA. Management of Population Programmes. In 'Crisis in Governance-An Independent Review of Bangladesh's Development 1997' (edited by Rehman Sobhan), University Press Limited, Dhaka, 1998

Islam MA. Sustainable Population Policy: Emerging Issues. Published in *Growth or Stagnation A Review of Bangladesh's Development 1996*, Centre for Policy Dialogue, UPL, 1996.

Islam MA. Population Policy: Thinking Ahead A Review of Bangladesh's Development 1995, Centre for Policy Dialogue, UPL, 1995.

Selected Research Publications

Jahan F, Siddika B, Chowdhury RI and **Islam MA**. A Poisson-Poisson model to analyze congestion data. *Advances and Applications in Statistics*, Volume 52, Number 1, 2018, Pages 55-71, <http://dx.doi.org/10.17654/AS052010055>.

Zangeneh Sirdari M and **Islam MA**. Goodness of fit test for higher order binary Markov chain models. *Cogent Mathematics & Statistics* (2018), 5: 1421003 <https://doi.org/10.1080/23311835.2017.1421003>.

Islam, MA, Chowdhury, RI & Sultan, KS. Analyzing Dependence in Incidence of Diabetes and Heart Problem Using Generalized Bivariate Geometric Models with Covariates. *Journal of Applied Statistics*, 2017 Vol. 44, No. 16, 2890–2907 <http://dx.doi.org/10.1080/02664763.2016.1266467>.

Islam, MA and Chowdhury, RI : A generalized right truncated bivariate Poisson regression model with applications to health data. *PLoS ONE* 06/2017; 12(6), DOI:10.1371/journal.pone.0178153

Dey, R and **Islam MA**. A Conditional Count Model for Repeated Count Data and Its Application to GEE Approach. *Statistical Papers* (2017) 58:485–504. DOI 10.1007/s00362-015-0708-9

Sharmin AA and **Islam MA**. Generalized Weibull Linear with Different Link functions. *Journal of Statistics: Advances in Theory and Applications*. Volume 50, Issue 5, Pages 367 - 384 (May 2017). <http://dx.doi.org/10.17654/AS050050367>

Taisir, R and **Islam, MA**: EM algorithm for longitudinal data with non-ignorable missing values: An application to health data. *The Bangladesh Journal of Scientific Research* 01/2016; 27(2):133., DOI:10.3329/bjsr.v27i2.26231

Chowdhury. R.I and **Islam, MA**. Zero Truncated Bivariate Poisson Model: Marginal-Conditional Modeling Approach with an Application to Traffic Accident Data. *Applied Mathematics* 07(14):1589-1598 • January 2016. DOI: 10.4236/am.2016.714137.

Jahan F, Sidika B and **Islam MA**. An Application of the Generalized Linear Model for the Geometric Distribution. *Journal of Statistics: Advances in Theory and Applications*, 16 No. 1 (2016), 45-65.

Mahanta, J, Biswas, SC, Roy, MK and **Islam, MA**. A Comparison of Bayesian and Classical Approach for Estimating Markov Based Logistic Model. *American Journal of Mathematics and Statistics*, 5(4), 178-183, 2016.

Islam MA and Chowdhury RI. A Bivariate Poisson Model with Covariate Dependence. *Bulletin of the Calcutta Mathematical Society*, 107(1), 11-20, 2015.

Islam MA, Chowdhury RI, Bae S and Singh KP. Assessing the Association in Repeated Measures of Depression. *Advances and Applications in Statistics*, 42(2), 83-93, 2014.

Khanam PA, **Islam MA**, Sayeed MA, Begum T, Rabbani MG, Choudhury S and Mahtab H. A Competing Risk Hazard Model for Complications of Diabetes Mellitus. *Journal of Biosciences and Medicines*, 2, 1-11, 2014

Sumi NS, **Islam MA** and Hossain MA Evaluation and computation of diagnostic tests: A simple alternative. *Bulletin of the Malaysian Mathematical Sciences Society*, 37(2), 411-423, 2014.

Islam MA and Chowdhury RI. Prediction of Disease Status: Transition Model Approach for Repeated Measures. *Pakistan Journal of Statistics*, 30(2), 181-196, 2014.

Sirdari MZ, **Islam MA** and Awang N. Dependence in Binary Outcomes of a Longitudinal Study and Test for Order: A Quadratic Exponential Form Approach. *Bulletin of the Malaysian Mathematical Sciences Society*, 37 (1), 129-137, 2014.

Dey, R. and **Islam, MA**: The Relationship between Odds Ratios and Correlation for Bivariate Bernoulli Model. *Journal of Applied Statistical Science*; 21(4), 377-388, 2013.

Islam MA, Chowdhury RI, S Bae and KP Singh. A Model for Assessing the Association in the Repeated Measures of Depression among the Elderly. Proceedings of the 20th International Congress on Modelling and Simulation, Adelaide, Australia, 1–6 December 2013 /www.mssanz.org.au/modsim2013.

Ahmed ME, **Islam MA** and Alzaid AA. Estimation and Test of Measures of Association for Correlated Binary Data. *Bulletin of the Malaysian Mathematical Sciences Society*, 36(4), 985-1008, 2013.

Islam MA, Alzaid AA, Chowdhury RI and Sultan K. A Generalized Bivariate Bernoulli Model With Covariate Dependence. *Journal of Applied Statistics*. 40 (5): 1064-1075, 2013.

Islam MA, Chowdhury RI and Huda S. Multistate Transition Model for Analyzing Longitudinal Depression Data. *Bulletin of the Malaysian Mathematical Sciences Society*, 36(3): 637-655, 2013.

Sirdari MZ, **Islam MA** and Awang N. A Stationarity Test on Markov Chain Models Based on Marginal Distribution. *Statistical Methodology*, 11: 68-76, 2013.

Noor NM, **Islam MA** and Ali Z. A Multistate Transition Model For Analyzing Diseases In Elderly Population. *World Applied Sciences Journal* 21 (12): 1700-1707, 2013.

Huque MH and **Islam MA**. Comparison of Statistical tests for assessing the proportionality assumption and estimation of parameters of the Cox model. *Pakistan Journal of Statistics*, 29(1); 111-128, 2013.

Islam MA, Chowdhury RI and Alzaid AA. Tests for Dependence in Binary Repeated Measures Data. *Journal of Statistical Research*, 46: 203-217, 2012.

Chowdhury RI, **Islam MA**, Huda S and Briollais L. Parameter Estimation in Logistic Regression for Transition, Reverse Transition and Repeated Transition from Repeated Outcomes. *Applied Mathematics* 3, 1739-1749, 2012.

Islam MA, Chowdhury RI and Singh KP. A Markov Model for Analyzing Polytomous Outcome Data. *Pakistan Journal of Statistics and Operations Research*, 8(3), 593-603, 2012.

Islam MA and Chowdhury RI. Elimination of Causes in Competing Risks: A Hazards Model Approach. *World Applied Sciences Journal*, 19(5): 608-614, 2012.

Islam MA, Chowdhury RI and Briollais L. A Bivariate Binary Model for Testing Dependence in Outcomes. *Bulletin of the Malaysian Mathematical Sciences Society*, 35(4), 845-858, 2012.

Khondoker MR and **Islam MA**. A Comparison of Alternative Methods for Testing Proportional Hazards Hypothesis. *Journal of Applied Statistical Science*, 18(4), 2011.

Chowdhury S, **Islam MA** and Islam JN. Higher Order Markov Structure based Logistic Model and Likelihood Inference for Ordinal Data. *Journal of Modern Applied Statistical Methods*, 10(2), 528-538, 2011.

Sinha NC, **Islam MA** and Ahamed KS. Logistic Regression Models for Higher Order Transition Probabilities of Markov Chain for Analyzing the Occurrences of Daily Rainfall Data. *Journal of Modern Applied Statistical Methods*, 10(1), 337-348, 2011.

Chowdhury S, Islam MA and Islam JN. Second Order Markov Model Without Covariate Dependence for Binary Data. *Journal of Applied Statistical Science*, 18(2), 2011.

Haque H and **Islam MA**. Assessment of Proportionality in the Proportional Hazards Model: A Comparative Study. *Journal of Applied Statistical Science*, 18(3): 375-396, 2010.

Islam MA and Chowdhury RI. Prediction of Disease Status: A Regressive Model Approach for Repeated Measures. *Statistical Methodology*, 7, 520-540, doi: 10.1016/j.stamet.2010.03.001, 2010.

Baharum A and **Islam MA**. The Analysis of Transitions in Economic Performance Using Covariate Dependent Statistical Models. *Journal of Developing Areas* 43(2), 289-298, 2010.

Sinha NC, **Islam MA** and Ahmed KS. Order Determination for the Transition Probabilities of Markov Chain Based on Logistic Regression Model. *Journal of Applied Statistical Science*, 17(4): 519-540, 2010.

Khondoker MR and **Islam MA**. Use of log-log Survival Function in Modeling Time-Covariate Interactions in Cox Regression. *Journal of Statistical Planning and Inference*, 139 (6): 1968-1973, 2009.

Islam MA et al. Estimation and Tests for a Longitudinal Regression Model Based on the Markov Chain. *Statistical Methodology*, 6(5): 475-489, 2009.

Aboobaider BM, Ahmad AR, **Islam MA** and Prabuwono AS. Reliability Analysis of Repair Time Data Using Semi-parametric Measures. *European Journal of Scientific Research* 33(4), 692-702, 2009.

Ping HL and **Islam MA**. Analyzing Incomplete Categorical Data: A Logistic Regression Approach. *Journal of Applied Statistical Science* 17(2): 259-278, 2010.

Islam MA, Chowdhury RI. Chapter 4: First and Higher Order Transition Models with Covariate Dependence. ed., F. Yang, Nova Science Publishers, Hauppauge, NY, pp. 153-196, 2008.

Ping HL and **Islam MA**. Analyzing Incomplete Categorical Data: Revisiting Maximum Likelihood Estimation Procedure. *Journal of Modern Applied Statistical Methods*, 7(2), 488-500. 2008.

Islam MA, Chowdhury RI, Singh KP. An Extended Logistic Regression Model for Analyzing Binary Outcomes at Different Phases of Experiment. *Journal of Applied Statistical Science*, 16(4): 93-103, 2008.

Islam MA, Chowdhury RI, Singh KP. A Higher Order Covariate Dependent Markov Model for Analyzing Repeated Binary Outcomes. *Journal of Modern Applied Statistical Methods* 6(2):561-572, 2008.

Latif AHMM, Hossain MZ, **Islam MA**. Model Selection Using Modified Akaike's Information Criterion: An Application to Maternal Morbidity Data. *Austrian Journal of Statistics* 37(2): 175-184, 2008.

Rahman MS and **Islam MA**. Markov Structure Based Logistic Regression for Repeated Measures: An Application to Diabetes Mellitus Data. *Statistical Methodology* 4: 448-460, 2007.

Islam MA, Chowdhury RI, Huda S. A Multistage Model for Analyzing Repeated Observations on Depression in Elderly. Festschrift in Honor of Distinguished Professor Mir Masoom Ali. On the Occasion of His Retirement, May 18-19, 2007: 44-54, 2007.

Chowdhury RI, **Islam MA**, Chakraborty N, Akhter HH. Determinants of Antenatal Morbidity: A Multivariate Analysis. *World Health & Population* 9(3):9-18, 2007.

Chowdhury RI, **Islam MA**, Gulshan J, Chakraborty N. Delivery Complications and Healthcare-Seeking Behaviour: the Bangladesh Demographic Health Survey, 1999-2000. *Health Soc Care Community* 15(3):254-64, 2007.

Islam MA, Chowdhury RI and Singh KP. Statistical Methods for Analysis of Repeated Measures on Maternal Morbidity. *Australian Journal of Rural Health* 14: 154-159, 2006.

Sinha NC, **Islam MA** and Ahmed KS. Chain Dependence and Stationarity Test for Transition Probabilities of Markov Chain under Logistic Regression Model. *Journal of the Korean Statistical Society* 35, 355-376, 2006.

Islam MA, Chowdhury RI. A Higher Order Markov Model for Analyzing Covariate Dependence. *Applied Mathematical Modelling* 30, 477-488, 2006.

Islam MA, Chowdhury, RI and Akhter HH. Complications During Pregnancy, Delivery, and Postnatal Stages and Place of Delivery in Rural Bangladesh. *Health Care for Women International* 27: 1-15, 2006.

Islam MA, Chowdhury RI. Modes of Delivery and Delivery Assistance in Rural Bangladesh. *Journal of Health and Population in Developing Countries*. <http://www.longwoods.com/>, 2006.

Akanda MAS, Khanam M, **Islam MA**. Comparison of Goodness-of-Fit Tests for GEE Modeling with Binary Responses to Diabetes Mellitus. *Journal of Applied Sciences* 5(7): 1214-1218, 2005.

Gulshan J, Chowdhury RI, **Islam MA**, Akhter HH. GEE Models for Maternal Morbidity in Rural Bangladesh. *Austrian Journal of Statistics* 34, 295-304, 2005.

Akanda MAS, Jahan K, Khanam M, **Islam MA**. Generalized Estimating Equations for Conditional and Unconditional Residuals in Diabetes Mellitus Data. *Journal of Applied Sciences* 5(7): 1228-1231, 2005.

Chowdhury RI, **Islam MA**, Shah MA, Al-Enezi N. A Computer Program to Estimate the Parameters of Covariate Dependence Higher Order Markov Model. *Computer Methods and Program in Biomedicine* 77: 175-181, 2005.

Kabir ME and **Islam MA**. Analyzing Heterogeneous Transitions Using GEE for a Two-State Markov Model. *Dhaka University Journal of Science* 53(2):57-64, 2005.

Islam MA, Chowdhury RI, Chakraborty N and Bari W. A Multistage Model for Maternal Morbidity during antenatal, delivery and postpartum periods. *Statistics in Medicine* 23(1): 137-158, 2004.

Sherif S, **Islam MA**. Comparison of Kernel Smoothing Techniques. *The Dhaka University Journal of Science* 52(2): 115-119, 2004.

Islam MM, **Islam MA**, Chakraborty N. Fertility Transition in Bangladesh: Understanding the Role of the Proximate Determinants. *Journal of Biosocial Science* 2004, 36(3): 351-370.

Chowdhury RI, **Islam MA**, Akhter HH, Chakraborty N. Analysis of Postpartum Complications in Relation to Selected Delivery Characteristics in Rural Bangladesh. *Journal of Health and Population in Developing Countries*. May, 2004 (URL:<http://www.jhpcdc.unc.edu/>).

Islam MA, Chowdhury RI, Chakraborty N, Bari W, Akhter HH. Factors Associated with Delivery Complications in Rural Bangladesh. *The European Journal of Contraception and Reproductive Health Care*, 9:203-213, 2004.

Chakraborty N, **Islam MA**, Chowdhury RI, Bari W, and Akhter HH. Determinants of the Use of Maternal Health Services in Rural Bangladesh. *Health Promotion International* 18: 327-337, 2003.

Chakraborty N, **Islam MA**, Chowdhury RI, and Bari W. 2003. Analysis Of Antepartum Maternal Morbidity In Rural Bangladesh. *The Australian Journal of Rural Health* 11(1), 22-27, 2003

Islam MA. A Birth Death Process Approach to Constructing Multistate Life Tables. *Bulletin of the Malaysian Mathematical Society (Second Series)*, 26, 1-8, 2003.

Hossain M and **Islam MA**. Application of Local Influence Diagnostics to the Linear Logistic Regression Models. *Dhaka University Journal of Science*, 51(2), 269-278, 2003.

Khondoker MR, **Islam MA**. Test for Proportional Hazards Assumption: An Application to Heart Transplant Data. *Journal of Applied Statistical Science* 11, 307-318, 2002.

Khondoker MR, **Islam MA**. Assessing Proportional Hazards Assumption in Competing Risk Situation. *Biometrical Journal*, 44(4), 456-465, 2002.

Hossain M, **Islam MA**. Testing the Significance of Local Influence. *Journal of Statistical Research*, 36(1), 85-97, 2002.

Bari W, Chowdhury RI, **Islam MA**, Chakraborty N and Akhter HH. The Differentials and Determinants of Perinatal Mortality in Rural Bangladesh. *The European Journal of Contraception and Reproductive Health Care*, ; 7:1-7, 2002.

Khan MA, Trottier DA, **Islam MA**. Inconsistent Use of Oral Contraceptives in Rural Bangladesh. *Contraception* 65(6), 429-433, 2002.

Chakraborty N, **Islam MA**, Chowdhury RI, and Bari W. Utilisation of Postnatal Care in Bangladesh: Evidence from a Longitudinal Study. *Health & Social Care in the Community* 10 (6), 492-502, 2002.

Islam MA, Islam MM, Khan MA. 2001. Community Participation in Family Planning in Bangladesh: Prospects and Strategies. *Journal of Health and Population in Developing Countries*, 4(2), 35-42, 2001.

Khan JA, **Islam MA**, Mallick SA. An Alternative to Cochran's Linear Function in Testing Goodness of Fit. *Dhaka University Journal of Science*, Vol 48(2), 2000.

Rahman MM, **Islam MA**. Analysis of Longitudinal Categorical Data. *Journal of Statistical Research*, Vol. 34(1), 2000.

Latif MU, **Islam MA**. An Extension of Multistate Hazards Models for Transitions and Reverse Transitions. *Journal of Applied Statistical Science*, 9(1), 11-22, 1999.

Rahman MM, **Islam MA**. Application of Quasi-likelihood Approach and GEE Method to Diabetes Mellitus Data. *SUST Studies*, Vol. 3(1), 1999.

Singh KP, Bae S, Bartolucci AA, Chowdhury RI, **Islam MA**, Warsono. "Estimation of Transition Rates in a Multi-state Proportional Hazards Model". *Environment International*. Vol. 25 No. 6/7, 781-785, 1999.

Majumdar S and **Islam MA**. Application of a Multistate Markov Model for Analysing the Individual Effects of Age and Sex on Diabetes Mellitus. *Journal of Statistical Studies*, 19, 45-53, 1999.

Park CB, **Islam MA**, Chakraborty, N. and Kantner, A. Partitioning the Effect on Infant and Child Death on Subsequent Fertility: An Exploration in Bangladesh. East-West Center Working Papers, Population Series No. 82, May, 1996. *Population Studies*, Vol. 52(3), 345-356, 1998.

Khan JA, **Islam MA**, Mallick SA. Modification of the Quadratic Form Approach to the Test of Goodness of Fit. *Dhaka University Journal of Science*, Vol. 45 (1), 1997.

Islam MA, Singh KP, Chowdhury RI and Bartolucci AA. "Multistate Hazards Model for Transitions and Reverse Transitions". Proceedings of the Third ISSAT international Conference on Reliability & Quality in Design (edited by H. Phang). March 12-14, Anaheim, California, USA, 213-217, March 12-14, 1997.

Chowdhury RI, **Islam MA**, Shah MA and Mohsin SA. "Estimation of Multi-state Survival Model. 29th Symposium on Interface. Houston, TX, USA, May 14-17, 29(1): 608-611, 1997.

Chowdhury N, Chakraborty N, **Islam MA**. Infant and Child Feeding Practices in Bangladesh: Evidence from Bangladesh Demographic and Health Survey, 1993-94 *Demography India*, Vol. 26(2), 1997.

Chowdhury RI, Singh KP, **Islam MA**, Bartolucci AA, Bae S. Interactive Scientific Processor (ISP) to the Estimation of Multistate Proportional Hazards Model. MODSIM 97, International Congress on Modelling and Simulation, Hobart, Tasmania, Australia, December 8-11, 1997.

Chakraborty N, Sharmin S, **Islam MA**. Differential Pattern of Birth Intervals in Bangladesh. *Asia-Pacific Population Journal*, Vol.11(4), 73-86, 1996.

Islam MA, Jalil MA. Expected Number of Survivors in Intercommunicating States. *Journal of Statistical Research*, 29, 1995.

Islam MA. Multistate Survival Model for Transitions and Reverse Transitions. *Journal of the Royal Statistical Society, Part A*, 157(3), 441-455, 1994.

Islam MA. A Multistate Approach to the Product-Limit Method. *The Statistician*, 43(2), 237-245, 1994.

Hokama, Shirai, **Islam MA**. Evaluation of Bioassay for Toxicity of Ciguateric Fish and Associated Toxins. *Journal of the Laboratory Analysis*, Vol. 8(2), 63-69, 1994.

Islam MA, Singh KP. Multistate Survival Models for Partially Censored Data. *Environmetrics*,3(2), 223-234, 1992.

Islam MA, Singh KP. Assessment of Dependence in the Lifetimes of Twins. Discussion on the paper by Hougaard P, Harvald B and Holm NV. In *Survival Analysis: State of the Art* (JP Klein and PK Goel, eds). Pp 92-97, Kluwer Academic Publishers, Boston, 1992.

Islam MA. Assessing Homogeneity and Association in Male and Female Infant Mortality in Bangladesh. *Rural Demography*, 16(1-2), 1989.

Hossain MF, **Islam MA**. Development of Capture-Recapture Methods: A Review of Hypergeometric, Binomial and Multinomial Models. *Journal of Statistical Studies*, Vol.8, 1988.

Hossain MF, **Islam MA**. An Alternative Approach to Choose Weights for Linear Functions in Testing Goodness of Fit. *Dhaka University Studies B*, 35(1), 1987.

Bennett BM, **Islam MA**. On Relative Precision in Stratified Sampling for a Proportion with Fixed Cost. *Biometrical Journal*. 28, 1986.

Bennett BM, **Islam MA**. On Relative Precision in Stratified Sampling for Proportions (with B.M.). *Metron* 41(3-4), 1983.

Other Conference Proceedings / Reports/Abstracts

Islam MA, Chowdhury RI and Huda S 2007. Multistate Proportional Hazards Models For Longitudinal Data for Different Transition Types (Abstract). *The Malaysian Journal of Medical Sciences, Vol 14 Supplement 1*.

Kassim S and **Islam MA**. 2007. Examining Some Important Features Of The Generalized Estimating Equation Model For Repeated Binary Outcomes (Abstract). *The Malaysian Journal of Medical Sciences, Vol 14 Supplement 1*.

Noor NM, **Islam MA** and Ali Z. 2007. A Multistate Transition Model For Analyzing Diseases In Elderly Population (Abstract). *The Malaysian Journal of Medical Sciences, Vol 14 Supplement 1*.

Ali Z, Noor NM, Baharum A and **Islam MA**. 2007. Longitudinal Data Analysis Using Markov Chain Regression (Abstract). *The Malaysian Journal of Medical Sciences, Vol 14 Supplement 1*.

Ping HL and **Islam MA**. 2007. Analyzing Incomplete Categorical Data: A Logistic Regression Approach (Abstract). *The Malaysian Journal of Medical Sciences, Vol 14 Supplement 1*.

Baharum A and **Islam MA**. 2007. Health And Wealth: A Statistical Analysis (Abstract). *The Malaysian Journal of Medical Sciences, Vol 14 Supplement 1*.

Ahmad N, Noor NM and **Islam MA**, 2007. A Non-Parametric Multistate Approach For Analysing Longitudinal Data (Abstract). *The Malaysian Journal of Medical Sciences, Vol 14 Supplement 1*.

Ahmad YH, **Islam MA** and Ahmad N. 2007. Multistate Survival Analysis On The Presence Of Diabetes Related Complications (Abstract). *The Malaysian Journal of Medical Sciences, Vol 14 Supplement 1*.

Ping HL and **Islam MA**. Estimation Procedures for Analyzing Incomplete Categorical Data: A Comparison between MLE and EM Algorithm. International Conference on research and Education in Mathematics organized by UPM, Kuala Lumpur, April, 2007.

Ping HL and **Islam MA**. Analyzing Incomplete Categorical Data: A Logistic Regression Approach. International Medical and Health Congress organized by USM, Kelantan, May, 2007.

Ping HL and **Islam MA**. Linear Models for Analyzing Incomplete Categorical Data. Presented at the IMT-GT Regional on Mathematics, Statistics and Applications, Organized by USM in Penang, December 2007.

Islam MA and Chowdhury RI. Conditional and Unconditional Models for a Sequence of Transitions in Longitudinal Data. Presented at the IMT-GT Regional on Mathematics, Statistics and Applications, Organized by USM in Penang, December 2007.

Islam MA, Chowdhury RI, Huda S. A Multistage Model for Analyzing Repeated Observations on Depression in Elderly. Festschrift in honor of Distinguished Professor Mir Masoom Ali. On the occasion of his retirement, May 18-19, 2007: 44-54.

Islam MA, Chowdhury RI, Singh KP. A Multi-State Markov Model for Analysis of Covariate Dependences. Proceedings of the "Third International Conference on Research and Education in Mathematics". 10th - 12th April 2007. The Legend Hotel, Kuala Lumpur, Malaysia.

Baharum A and **Islam MA**. A Stochastic Model for Analyzing Gross Domestic Product. Proceedings of the "Third International Conference on Research and Education in Mathematics". 10th - 12th April 2007. The Legend Hotel, Kuala Lumpur, Malaysia.

Ping HL, **Islam MA**, Uda S. EM Algorithm and Analysis of Incomplete Categorical Data. Seminar Kebangsaan Sain Kuantitatif organized by UUM in Langkawi, December, 2006.

Chowdhury, RI; **Islam, MA**; Huda, S. SAS/IML for Parameters Estimation for Multistate Higher Order Covariate Dependent Markov Model. XXIII International Biometric Conference, July 16 – 21, 2006, Montréal, Canada.

Islam MA. A Multistage Model for Analyzing Repeated Observations. CD-ROM Publication of the Proceedings of the Hawaii International Conference on Statistics and Related Fields, Sheraton Waikiki Hotel, Honolulu, Hawaii, June 5-8, 2003 (<http://www.hicstatistics.org/2003StatsProceedings/M.%20Islam.pdf>).

Noor NM, Ali Z, **Islam MA**, Chowdhury RI. Competing Risk Analysis of Longitudinal Data on Chronic Diseases for Elderly People. Presented at the National Conference of Management Science and Operations Research, Melaka, Malaysia, 24-25 June, 2003.

Kassim S, **Islam MA**, Chowdhury RI. A Modified Generalized Estimating Equation Model for Repeated Binary Outcomes. Presented at the National Conference of Management Science and Operations Research, Melaka, Malaysia, 24-25 June, 2003.

Islam MA, Chowdhury RI and Baharum A. A Higher Order Markov Model for Analyzing Covariate Dependence. A Higher Order Markov Model for Analyzing Covariate Dependence, Proceedings of the National Conference of Management Science and Operations Research, Melaka, Malaysia, 24-25 June, 2003, pp. 25-33.e and Operations Research, Melaka, Malaysia, 24-25 June, 2003, pp. 25-33.

Chowdhury RI, **Islam MA**. "Estimation of Parameters of a Higher Order Markov Model for Analyzing Covariate Dependence Using S-Plus". Hawaii International Conference on Statistics and Related Fields. Honolulu, Hawaii, USA, June 5-8, 2003.

Islam MA and Chakraborty N. Projected Contraceptive Commodity Requirements (2000-2015). Prepared for the Ministry of Health and Family Welfare. Arlington, Va: DELIVER/John Snow, Inc. 2002.

Chowdhury RI, **Islam MA**, Shah MA. "Estimation of Parameters of Generalized Estimating Equations (GEE) using S-plus". 2000 S-PLUS International User Conference. Seattle, WA, USA, October 18-20, 2000.

Park CB, **Islam MA**, Chakraborty N and Kantner A. Partitioning the Effect on Infant and Child Death on Subsequent Fertility: An Exploration in Bangladesh. East West Center Papers, Population Series No. 82, East West Center, Honolulu, 1996.

Khan A, Mahtab, **Islam MA**. Factors Contributing to the Development of IGT or DM in Offspring of both Parents Diabetic. Presented at the 14th International Diabetes Federation Congress, June 23-28, 1991, Washington DC, Diabetes 40, 1155. (abstract).

Islam MA et al. Sex Linkage in Inheritance of Diabetes Mellitus. Presented at the 13th International Diabetes Federation Congress Held in Sydney, November 20-25, 1988. Diabetes Research and Clinical Practice, ELSEVIER, DRCPE 9 Supplement 1 to Volume 5, 1988. (abstract).

Islam MA. A New Method of Constructing Increment-Decrement Life Tables. Biometrics 40 (4), 1984. (abstract).

Ferdousi P, **Islam MA**. A Second Order Markov Chain for Analyzing Covariate Dependence pattern of Longitudinal Data with An Application to Diabetes Mellitus. Proceedings of the Seventh National Statistical Conference on Statistics in the New Millenium, Bangladesh Statistical association, Dhaka, 2001.

Ibrahim QI, **Islam MA**. Modeling Overdispersed Data: An Extended Quasi-likelihood Approach. Proceedings of the Seventh National Statistical Conference on Statistics in the New Millenium, Bangladesh Statistical Association, Dhaka, 2001.

Tareq M, **Islam MA**. Stratification in Case-Control Study: An Empirical Investigation. Proceedings of the Seventh National Statistical Conference on Statistics in the New Millenium, Bangladesh Statistical Association, Dhaka, 2001.

Tareq M, **Islam MA**. A Comparative Study on Pseudo and Maximum Likelihood Methods of Fitting Logistic Model to Case-Control Data. Proceedings of the Seventh National Statistical Conference on Statistics in the New Millennium, Bangladesh Statistical Association, Dhaka, 2001.

Gulshan J, **Islam MA**. An Extension of GEE for Repeated Measures with Polytomous Responses. Proceedings of the Seventh National Statistical Conference on Statistics in the New Millennium, Bangladesh Statistical Association, Dhaka, 2001.

Kabir ME, **Islam MA**. Analyzing Heterogeneous Transitions Using GEE for a Two-state Markov Model with an Application to Diabetes Mellitus. Proceedings of the Seventh National Statistical Conference on Statistics in the New Millennium, Bangladesh Statistical Association, Dhaka, 2001.

Islam MA. Program Performances in Areas Served by Government and Non-Government Organizations (with N. Chakraborty and J.A. Khan). In BDHS 96-97 Special Analysis, NIPORT, MEASURE/DHS+ and ORC Macro International, Dhaka, 2000.

Islam MA. Population, Development and Environment: The Emerging Issues. CPD-UNFPA Program on Population and Sustainable Development, CPD Paper Series 2, Dhaka, 1999. Being included in the book 'Demographic Dynamics in Bangladesh: Looking at the Larger Picture'.

Islam MA. Projected Contraceptive Requirements 1998-2003. FPLM and USAID, Dhaka, 1999.

A Barkat, **Islam MA**, and others. Strategic Directions for the Bangladesh National Family Planning Program 1995-2005. Ministry of Health and Family Welfare, Government of Bangladesh, 1996.

Thwin, AA, **Islam MA** and others. Health and Demographic Profile of the Urban Population of Bangladesh: An Analysis of Selected Indicators. Special Research Report No. 47, ICDDR,B, 1996.

Islam MA, Al-Sabir A. Research in MCH-FP: Achievements and Challenges. In the Proceedings of the Workshop on Research Priorities in Population and Reproductive Health, NIPORT, GTZ and the Population Council, 1995.

Rafiquzzaman AKM, **Islam MA**. Research Priorities and Achievements in MCH-FP: 1991-95. In the Proceedings of the Workshop on Research Priorities in Population and Reproductive Health, NIPORT, GTZ and the Population Council, 1995.

Musa M, Kabir A, **Islam MA**. Graded Vocabulary Survey on the Children of Bangladesh, 1993. Published by the National Curriculum and Textbook Board. 1993.

Hossain MF, **Islam MA**. Stochastic Analysis of Capture-Recapture Events. Proceedings of the One Day Seminar, Bangladesh statistical Association, May 10, 1991.

Islam MA. Comments on the Methodological Issues of Sample Vital Registration System conducted by the Bangladesh Bureau of Statistics. Published in the Proceedings of the National Seminar on Recent Trends of Fertility in Bangladesh, PDEU, Planning Commission, Dhaka, June 11-13, 1987.

Islam MA, et al. Duration of Contraceptive Use in Bangladesh. In Secondary Analysis of Bangladesh Contraceptive Prevalence Survey 1985, Mitra and Associates, Dhaka, 1988.

Islam MA, et al. Determinants of Acceptance, Continuation and Termination of Family Planning Methods. In Secondary Analysis of Bangladesh Contraceptive Prevalence Survey 1985, Mitra and Associates, Dhaka, 1988.

Shuaib M, **Islam MA**. Characteristics of Breast feeding Duration in Bangladesh. In Secondary Analysis of Bangladesh Contraceptive Prevalence Survey 1985, Mitra and Associates, Dhaka, 1988.

G. Papers Presented at Conferences/ Seminars

Sirdari MZ and **Islam MA**. Tests on Stationarity and Order of a Higher Order Markov Chain. Paper presented at the 5th Asian Mathematical Conference Held in Kuala Lumpur, June 22-26, 2009.

Ping HL and **Islam MA**. Analyzing Incomplete Categorical Data: A Comparison between Iterative Maximum Likelihood and EM Algorithm. Paper presented at the 5th Asian Mathematical Conference Held in Kuala Lumpur, June 22-26, 2009.

Islam MA and Sultan K. Presented a paper on the Estimation and Tests for Longitudinal Regression Model Based on Markov Chain in the Seminar Series of the Department of Statistics and OR, King Saud University, Riyadh, May 23, 2004.

Islam MA. Presented a paper on the Survival Models for Analyzing Longitudinal Data in the Seminar Series of the Department of Statistics and OR, King Saud University, Riyadh, January 4, 2004.

Islam MA. Presented a paper in the Conference on Integrating Technology in Mathematical Sciences, Universiti Sains Malaysia, April 14-15, 2003.

Islam MA. A Multistage Model for Analyzing Repeated Observations. Paper presented on my behalf at the Hawaii International Conference on Statistics and Related Fields, Sheraton Waikiki Hotel, Honolulu, Hawaii, June 5-8, 2003.

Islam MA. Presented a Paper on Writing Scientific Papers: Some Important Issues in the seminar Series at the School of Mathematical Sciences, Universiti Sains Malaysia, 2003.

Islam MA, Chowdhury RI and Baharum A. A Higher Order Markov Model for Analyzing Covariate Dependence. A Higher Order Markov Model for Analyzing Covariate Dependence. Paper Presented at the National Conference of Management Science and Operations Research, Melaka, Malaysia, 24-25 June, 2003.

Noor NM, Ali Z, **Islam MA, Chowdhury RI**. Competing Risk Analysis of Longitudinal Data on Chronic Diseases for Elderly People. Presented at the National Conference of Management Science and Operations Research, Melaka, Malaysia, 24-25 June, 2003.

Kassim S, **Islam MA**, Chowdhury RI. A Modified Generalized Estimating Equation Model for Repeated Binary Outcomes. Presented at the National Conference of Management Science and Operations Research, Melaka, Malaysia, 24-25 June, 2003.

Islam MA. Survival Models for Analyzing Longitudinal Data: A Proposed Model for Multistage Analysis. Paper Presented in the Seminar Series of the School of Mathematical Sciences, Universiti Sains Malaysia, 2003.

Islam MA, Chowdhury RI. Limitations of Generalized Estimating Equations: Preliminary Checks for Correct Application to Binary Data. Joint Meetings of the International Biometric Society and the Indian Society for Medical Statistics, Lucknow, India, 2001.

Islam MA. Recent Developments in Longitudinal Data Analysis. Paper Presented at the Seventh National Statistical Conference on Statistics in the New Millennium, Bangladesh Statistical association, Dhaka, 2001.

Islam MA, et al. Examining the Diagnostic Criteria for Diabetes Mellitus: Relationship between Fasting and Two-hour Plasma Glucose Values. Paper presented at the 15th International Diabetes Federation Congress, Kobe, November 6-11, 1994.

Mahtab H, **Islam MA** and Others Risk Factors of Stillbirth and Spontaneous Abortion among Diabetics Registered at BIRDEM. Paper presented at the 15th International Diabetes Federation Congress, Kobe, November 6-11, 1994.

Islam MA. Survival Models for Longitudinal Data Analysis. Invited paper presented at the conference on Biomathematics, Biostatistics and Biophysics, Organized by RCMPS, Chittagong University, Chittagong, 1994.

Islam MA. Multistate Hazards Model. Presented at the 222nd Meeting of the Institute of Mathematical Statistics, Cincinnati, Ohio, March 22-25, 1992.

Islam MA and Menken J. Multistate Analysis of Contraceptive Use Dynamics. Presented at the Annual Meeting of PAA, Denver, Colorado, April 30-May 2, 1992.

Frankenberg E, **Islam MA**. Contraceptive Use Dynamics in Bangladesh: Adoption and Continuation of Method Use. Paper presented at the Annual Meeting of the Population Association of America, Washington DC, March 1991.

Islam MA and Menken J. Multistate Life Tables for Contraceptive Use Dynamics (with Jane Menken). Paper presented at the Annual Meeting of the Population Association of America, Washington DC, March 1991.

Islam MA. Nonparametric Estimation of Multistate Survivor Functions for Censored Data. Paper presented at the Workshop on Survival Analysis held in Ohio State University, Columbus, Ohio, June 23-28, 1991.

Islam MA. Multistate Survival Models with Covariates. Paper presented at the 54th Annual Meeting of the Institute of Mathematical Statistics held in Atlanta, Georgia, August 19-22, 1991.

Khan A, Mahtab, **Islam MA**. Factors Contributing to the Development of IGT or DM in Offspring of both Parents Diabetic. Presented at the 14th International Diabetes Federation Congress, June 23-28, 1991, Washington DC, Diabetes 40, 1155.

Islam MA et al. Sex Linkage in Inheritance of Diabetes Mellitus. Presented at the 13th International Diabetes Federation Congress Held in Sydney, November 20-25, 1988.

H. Book Review

Latent Variable Models and Factor Analysis, 2nd Edition, D.J. Bartholomew and M. Knott. Journal of Statistical Research, 34(1), 2000.

I Research Grants

HEQEP Project on Covariate Dependent Models for Correlated Outcomes in Longitudinal Data Analysis, 2014, funded by UGC-World Bank.

KACST project on Long Term Comprehensive National Plan for Science, Technology and Innovation, Predicting Outcomes Using Dependence Models in Repeated Measures, King Saud University, Saudi Arabia, 2012. (1 million Saudi Riyal).

Fundamental Research Grant Scheme (FRGS) for conducting study on Some Fundamental Issues Concerning Longitudinal Models: Theory and Applications, Science Malaysia, 2007.

Short Term Grant on A Transition Model for Autoregressive Process, University Science Malaysia, 2007.

Short Term Grant on Repeated Measures Analysis in Operations Research, University Sains Malaysia, 2007 (co-investigator).

Fundamental Research Grant Scheme (FRGS) for conducting a series of studies on Models for Repeated Measures: Some Theoretical Extensions, University of Science Malaysia, Penang, 2002.

CPD-UNFPA study on Plateauing of Fertility in Bangladesh, 2000-2001.

CPD-UNFPA study on Population Momentum and Its Impact, 2000.

CPD-UNFPA study on Population, Development and Environment: Emerging Issues, 1999.

Special Topic Analysis of the 1996-97 Bangladesh Demographic and Health Survey, MACRO, USA and USAID, 1998-99.

CPD study on Management of Population Programmes, 1998

CPD study on Sustainable Population Policy, 1996.

Extended Analysis for Examining the Relationship Between Infant and Child Mortality and Fertility, East-West Center, USA, 1995-96.

Study on Oral Contraceptive Compliance KAP Baseline – Rural Bangladesh, FHI, USA and USAID, 1995-1996.

Secondary Analysis of the Needs Assessment of Primary Health Care Services in the Urban Areas Dhaka, Johns Hopkins University, USA and ICDDR,B, 1995.

CPD study on Population Policy- Thinking Ahead, 1995.

Secondary Analysis of the Contraceptive Prevalence Survey, USAID, Dhaka, 1985.

Bose Centre Grant, Dhaka University, 1989

J TEACHING AND SUPERVISION

Supervised nine PhD dissertations at the University of Dhaka, King Saud University and Universiti Sains Malaysia

Supervised more than 100 MS research at the University of Dhaka, King Saud University and Universiti Sains Malaysia

As a Professor at the King Saud University, taught post graduate courses on inference, survival analysis and special topic generalized linear models. In addition, also taught courses such as regression analysis, biostatistics, linear models, analysis of variance. Supervised PhD and MS research works. Co-ordinated the PhD committee during 2012-2013 sessions.

As a Professor at the Universiti Sains Malaysia, taught courses on reliability, linear models and categorical data analysis.

As an Associate Professor and Professor since 1989 (excluding the period 1990-93) taught basic statistics at undergraduate level (100 students); stochastic processes (60 students), biostatistics (25-30 students), reliability (50 students) and linear models (34 students) at graduate levels.

As a Visiting Faculty of the School of Mathematical Sciences, Universiti Sains Malaysia, taught graduate courses on linear models, reliability analysis/ survival analysis and stochastic processes. Supervised 12 students for their project reports, one student for full time MSc research, and supervised five research students for their Masters thesis. In addition, I conducted a Fundamental Research Grant Scheme Project on repeated measures as the Principal Investigator and trained up five of my colleagues on writing papers in the field of survival analysis.

As a Visiting Faculty at the School of Public Health, University of Hawaii, USA, taught 6 graduate courses in 3 semesters during 1991-93 period. The approximate size of the classes are given below: (i) Introduction to Biostatistics, 40 students, (ii) Sampling Techniques in Public Health, 20 students, (iii) Statistical Techniques in Epidemiologic Research, 20 students; (iv) Applied Multivariate Analysis, 15 students, (v) Introduction to Biostatistics, 35 students; (vi) Longitudinal Data Analysis, 15 students

As an Assistant Professor during 1985-89 period, taught two or more courses per semester at undergraduate and post graduate levels. On an average, the number of undergraduate students was 80, and number of post-graduate students was 50. Taught the following courses: Regression Analysis/ Linear Models, Statistical Inference (both Estimation and Tests of Hypothesis), Stochastic Processes, Basic Statistics, Biostatistics, etc.

As a Lecturer, during 1979-81, taught courses on: Basic Statistics, Statistical Inference, Stochastic Processes, Applied Statistics, etc. On an average, the number of undergraduate students was 80, and number of post-graduate students was 50.

Visiting Professor/Fellowship

1. Visiting Professor, University of Alabama at Birmingham, USA.
2. Visiting Professor, Universiti Sains Malaysia several times during 2006-2013.
2. Visiting Professor, Kuwait University, 2005.
3. Visiting Professor, University of Alabama at Birmingham, 2013.
4. Post-doctoral Fellow, University of Pennsylvania, USA, 1990-91
5. Visiting Fellow, East-West Center, USA, 1996
6. Visiting Faculty, Biostatistics Program, University of Hawaii, USA, 1991-93
7. Post-doctoral Fellow, East-West Center, USA, 1985.

Invited Speaker

Invited Speaker at the International Conference on Geometry and Mathematical Models in Complex Phenomena (ICGMMCP-2017), Kolkata, December 05-07, 2017 Organized by the Calcutta Mathematical Society.

Plenary Speaker at the International Conference on Current Developments in Mathematics and Mathematical Sciences (ICCDMMS-2014) held at the Calcutta Mathematical Society, Kolkata, India, December 19-21, 2014.

Invited Speaker at the ISI Regional Statistics Conference held in Kuala Lumpur, November, 2014.

Invited Speaker at the Faculty of Information and Communication Technology, UTEM, Malaysia on August 29, 2007. Presented a paper on Statistical Methods in Artificial Intelligence and ICT.

Invited Speaker in the Conference in Honor of George Frances Ball Distinguished Professor of Statistics Mir Masoom Ali on the Occasion of his Retirement, May 18-19, 2007, Muncie, Indiana, USA.

Presented a Paper As An Invited Speaker of UNFPA in A Regional Symposium Held in Dhaka September, 2002 on Population and Development Challenges in Some Asian Countries: A Knowledge Sharing Experience.

Seventh National Statistical Conference on Statistics in the New Millennium, Dhaka, 2001, Survival Models for Longitudinal Data Analysis, Dhaka

Keynote Speaker at the CPD-UNFPA Dialogue on Exploring Recent Fertility Behaviour, Held in Dhaka on 20.11.2001.

One of the Two Keynote Speakers at the CPD-UNFPA Dialogue on Population, Development and Urbanization: The Emerging Issues, Held in Dhaka on 4.7.99.

Invited Speaker on the Management of Population, Independent Review of Bangladesh's Development, 1997. Held in Dhaka on 21. 10.97.

Invited Speaker on the Population Issues in the Dialogue on Growth or Stagnation? A Review of Bangladesh's Development. Held in Dhaka on 22, 30, 31 March 1997.

Invited Speaker on Population Policy: Thinking Ahead in the Dialogue on Experiences with Economic Reform: A review of Bangladesh's Development, 1995. Held in Dhaka on 8.11.95.

K. Professional/Academic Association / Session Chairs(Committee/Member)

- 1 Chairman, Convening Committee, The First International Conference on Theory and Applications of Statistics, University of Dhaka, December 26-28, 2010.
- 2 Chaired the Plenary Session on Recent Developments on Record Values by Professor M Ahsanullah at the 5th Asian Mathematical Conference Held in Kuala Lumpur, June 22-26, 2009.
- 3 Organized the Invited Paper Session on Longitudinal Data Analysis at the 5th Asian Mathematical Conference Held in Kuala Lumpur, June 22-26, 2009.
- 4 Organized and Chaired the Workshop on Longitudinal Data Analysis at the 5th Asian Mathematical Conference Held in Kuala Lumpur, June 22-26, 2009.
- 5 Elected Member, International Statistical Institute
- 6 Former Member, American Statistical Association.
- 7 Former Member, Institute of Mathematical Statistics.
- 8 Member, Bangladesh Statistical Association.
- 9 Member, Bangladesh Population Association.
- 10 Former Member, Royal Statistical Society.

- 11 Organizing Invited Paper Session on Survival Analysis for the forthcoming ICCS IX to be held in Kuala Lumpur, December, 2007.
- 12 Chaired the Session on Statistical Models at the Conference on Integrating Technology in Mathematical Sciences, Universiti Sains Malaysia, April 14-15, 2003.
- 13 Contributed significantly in the sampling design and methodology of the National Media Survey 2002.
- 14 Member, Technical Review Committee, Bangladesh Maternal Health Services and Maternal Mortality Survey 2001
- 15 Chaired a Session on Survival Analysis at the Joint Meeting of the International Biometric Society and the Indian Medical Statistics Held in Lucknow, 2001.
- 16 Chaired a Session on Survival Models at the Conference of the Bangladesh Statistical Association, Dhaka, 2001.
- 17 Member, Technical Review Committee and Technical Task Force, 1999-2000 Bangladesh Demographic and Health Survey.
- 18 Member, Technical Review Committee, 1999-2000 Bangladesh Demographic and Health Survey.
- 19 Member, Technical Review Committee, Census and Surveys, Ministry of Planning, 1998.
- 20 Member, Steering Committee, Household Expenditure Survey Project, Bangladesh Bureau of Statistics, 1998-2002.
- 21 Member, Technical Committee, Child Nutrition Survey of Bangladesh 1995-96.
- 22 Member, Technical Review Committee, Population and Health, Ministry of Planning , 1998.
- 23 Member, Technical Committee on Population Policy, Ministry of Health and Family Welfare, 1998.
- 24 Member, Expert Committee on Population, Encyclopedia of Bangladesh, Asiatic Society of Bangladesh, 1998.
- 25 Member, Editorial Committee, the Journal of Parisankhyan Samikkha (Statistical Review), University of Dhaka.
- 26 Member, Working Group of the Essential National Health Research, Bangladesh since 6/89.
- 27 Publication Secretary of the Bangladesh Statistical Association, Served as a member of the editorial committee for publishing the Proceedings of an Annual Conference in 1987.
- 28 Publication Secretary of the Bangladesh Population Association. Served as a member of the editorial committee for publishing the Proceedings of an Annual Conference in 1988.

L Consultancy

- 1 Consultant, Projected Contraceptive Requirements, 1998-2003, FPLM, JSI and USAID.
- 2 International Consultant, UNFPA, Sudan from March 2000 to May 2000. Analyzed Data on Safe Motherhood Survey, 1999 and Completed Three Reports on Khartoum, Sinnar and Western Darfur States.
- 3 International Consultant, UNFPA, 11/98 to 1/99. International Consultant, UNFPA, Sudan. Analyzed four baseline survey data and completed four reports on reproductive health and family planning for Mayo, Sinnar, Umbaddah and Barbar. These surveys were conducted in order to develop a National Integrated Information System with the technical

support from UNFPA. In addition, assisted in the sampling and questionnaire design as well as in editing and finalizing the manual of social indicators.

4 Consultant, USAID to conduct a Secondary Analysis on Bangladesh Demographic and Health Survey 1996-97 during 4/98-4/99.

5 Consultant for reviewing proposals on NIPHP NGO Impact Study for Rural and Urban Areas, 1998, Pathfinder International and JSI.

6 Consultant, East-West Center, USA. Conducted an Extended Analysis for Examining the Relationship Between Infant and Child Mortality and Fertility during 10/95 to 5/96.

7 Consultant, Projected Contraceptive Requirements, FPLM, JSI and USAID, Dhaka.

8 Consultant, Pilot Comprehensive Health and Demographic Survey, 1993, Bangladesh Bureau of Statistics.

9 Consultant of Bangladesh Bureau of Statistics to suggest modifications of Integrated Multi purpose Survey (IMPS) Design of BBS. This sampling design is expected to serve as a Master sample Design for various nationally representative surveys.

10 Member of a Task Force to recommend an Action Plan to Strengthen the Collection of Economic and social Data in Bangladesh, formed by the Government of Bangladesh.

11 Member of the National Committee for implementation of program of action of the ICPD 1994.

12 Member, Working Group of the Essential National Health Research, Bangladesh since 1989. Contributed in setting the priorities of health research in Bangladesh

M. SERVICE (UNIVERSITY/COMMUNITY)

1 Founder Member, Trustee Board, Dhaka University Statistics Department Alumni Association

2 Founder Chairman, Executive Committee, Dhaka University Statistics Department Alumni Association

3 Chairman, Convening Committee, The First International Conference on Theory and Applications of Statistics, University of Dhaka, December 26-28, 2010.

4 Chairman, Department of Statistics, University of Dhaka, 1996-97.

5 Director, Statistical Research Unit, Department of Statistics, University of Dhaka, 1993-96.

6 Chairman, Examination Committees, MSc (Final) Year, 1996 and Member of M.Sc. and other Examination Committees many times.

7 Member, Planning Committee, Department of Statistics, DU since 1995.

8 Member, Academic Committee, Department of Statistics, DU since 1980.

9 As an Honorary Member of the Working Group of the Essential Health Research, I have been contributing towards improving the health research in Bangladesh since 1989.

10 As an Honorary Consultant of the Research Division of the Bangladesh Institute of Research and Rehabilitation in Diabetes, Endocrine and Metabolic Disorders (BIRDEM), Dhaka, I have been helping a noble cause since 1987.

11 As an Honorary Member of the Technical Committees of the Bangladesh Bureau of Statistics, I have contributed in planning, training, analyzing and writing of Health and Demographic Survey Reports.