

Dr. Mossamet Kamrun Nesa

HILDA Survey Statistician/Methodologist
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Tertiary Qualifications

PhD (Applied Statistics), University of Wollongong, 2018. Thesis title: ‘Multivariate Small Area Estimation for Health Indicators’

Master of Science in Statistics, Shahjalal University of Science & Technology, Sylhet, Bangladesh, 2007. Thesis title: ‘Fertility in Bangladesh: Level, Trends, and Transition’

Bachelor of Science in Statistics, Shahjalal University of Science & Technology, Sylhet, Bangladesh, 2005

Professional Membership

Statistical Society of Australia Inc. (SSAI)

American Statistical Association (ASA)

Bangladesh Statistical Association (BSA)

ParisankhyanParibar (Statistics Family), Department of Statistics, SUST, Sylhet, Bangladesh

Employment

Survey Statistician (February 2022 -)

Melbourne Institute: Applied Economic and Social Research, University of Melbourne, Australia

Associate Professor (May 2019 -)

Department of Statistics, Shahjalal University of Science & Technology (SUST), Sylhet, Bangladesh

Honorary Research Fellow (September 2, 2019 -)

National Institute for Applied Statistics Research Australia (NIASRA), School of Mathematics and Applied Statistics, University of Wollongong, NSW, Australia

Student Advisor (March 2020 – January 2022)

Department of Statistics, Shahjalal University of Science & Technology (SUST), Sylhet, Bangladesh

Project Principal Investigator (July 2021 – January 2022)

Project entitled “COVID-19 pandemic, mental health and job uncertainty among university students: A case study of SUST, Sylhet, Bangladesh”, Department of Statistics, Shahjalal University of Science & Technology (SUST), Sylhet, Bangladesh

Project Co-investigator (September 2018 – August 2020)

Project entitled “Disaggregate Level Maternal Health Care Indicators in Sylhet Division: An Application of Area Level Small Area Estimation Method”, Department of Statistics, Shahjalal University of Science & Technology (SUST), Sylhet, Bangladesh

Associate Research Fellow (November 2017– July 2018)

Australian Health Services Research Institute (AHSRI), University of Wollongong, Wollongong, NSW, Australia

Part-Time Teaching Academic (August 2014 – July 2016)

School of Mathematics and Applied Statistics, University of Wollongong, Wollongong, NSW, Australia

Assistant Professor (July 2012 – May 2019)

Department of Statistics, Shahjalal University of Science & Technology (SUST), Sylhet, Bangladesh

Lecturer (October 2009 – July 2012)

Department of Statistics, Shahjalal University of Science & Technology (SUST), Sylhet, Bangladesh

Research Interests

Longitudinal survey methodology; imputation; data quality; small area estimation; multivariate modelling, sampling, public health, demography.

Publications

Journal Articles

1. Nesa, M.K., Babu, M.R., Khan, M.T.M (2021) “Forecasting COVID-19 situation in Bangladesh”, *Biosafety and Health*, 4(1), 6-10.
2. Khan, M.T.M., Nesa, M.K. (2020) “Hard and Soft Dichotomization of Project Management: A Critical Analysis”, *Human Resource Management Research*, 10(3), 45-50.
3. Islam, S., Nesa, M.K., Rahman, A. (2020) “Disaggregate Level Maternal Health Care Indicators in Sylhet Division: An Application of Area-level Small Area Estimation”, *SUST Journal of Science and Technology*, 30(2), 44-52.
4. Nesa, M.K. (2019) “District Level Child Nutrition Status in Bangladesh: An Application of Small Area Estimation Method”, *Journal of Statistical Research*, 53(1), 45-61.
5. Nesa, M.K. (2018) “Numerical and Empirical Evaluation of Fay-Herriot Models” *International Journal of Statistics and Applications*, 8(6), 291-296. doi: 10.5923/j.statistics.20180806.01.
6. Paul, G.K., Nesa, M.K., Salan, S.A., Mim, F.N., Mondal, S.K. (2018) “Application of Proportional Odds Model in Identifying Contributing Factor of Under Five Child Malnutrition in Bangladesh: A Case Study in Tangail District” *Journal of Health Research and Review*. 5, 128-134. doi: 10.4103/jhrr.jhrr_38_18.
7. Islam, S., and Nesa, M.K. (2009) “Fertility Transition in Bangladesh: The Role Education”, *Proc. Pakistan Acad. Sci*, 46(4):195-201.
8. Das, S., Hossain, M.Z. and Nesa, M.K. (2009) “Levels and Trends in Child Malnutrition in Bangladesh”, *Asia Pacific Population Journal*, 24(2), 51-78.
9. Baten, M.A., Rana, M.M., Das, S. and Nesa, M.K. (2007) “Privatization and Regional Agglomeration Effect on Technical Efficiency of Bangladesh Manufacturing Industry”, *Journal of Economic Cooperation*, 28(4), 81-104.

Conference and Seminar Presentations

1. Nesa M.K., Clark, R., and Birrell.C. “The Efficiency of Bivariate Small Area Estimators”, 2nd International Conference on Applied Statistics, Dhaka, Bangladesh, December 2019.
2. Rahman, M.A., Nesa, M.K., “Estimation of Coverage of Antenatal and Postnatal Care at District Level in Bangladesh: An Application of Small Area Estimation Method,” 2nd International Conference on Applied Statistics, Dhaka, Bangladesh, December 2019.
3. Rahman, M.A., Nesa, M.K., “Spatial Distribution of Diarrhoea and Acute Respiratory Infection at District Level in Bangladesh using Small Area Estimation,” National Seminar on Official Statistics: Collection and Dissemination, Bangladesh Statistical Association (BSA), Dhaka, Bangladesh, September, 2019.
4. Nesa M.K., Clark, R., and Birrell.C. “The Efficiency of Bivariate Small Area Estimators”, 1st National conference on “Application of Statistics on Sustainable Development Goals”, 2018 (NCASSDG 2018), September 2018, Tangail, Bangladesh
5. Nesa, M.K., Clark, R., and Birrell.C. “Estimation of Contingency Tables for Small Areas Using Multi-Level Loglinear Models”, ASC-IMS Conference, Melbourne, Australia, August 2018.
6. Nesa, M.K., Clark, R., and Birrell.C. “The Efficiency of Bivariate Small Area Estimators, Small Area Estimation Conference, Shanghai, China, June 2018.
7. Nesa, M.K., Clark, R., and Birrell.C. “Estimation of Contingency Tables for Small Areas Using Multi-Level Loglinear Models”, Small Area Estimation Conference, Shanghai, China, June 2018.
8. Nesa, M.K., Clark, R., and Birrell.C. “Small Area Estimates for Cross-Classified Health Indicators in New Zealand: An Application of Multinomial Logit Mixed Model”, ASC-IMS Conference, Canberra, Australia December 2016.
9. Nesa, M.K., Clark, R., and Birrell.C. “Adults Health Status and Behaviors in New Zealand: An Application of Multivariate Fay-Herriot Model”, ASPPAC Conference, Wagga Wagga, Australia December 2014.
10. Nesa, M.K., Clark, R., and Birrell.C. “Adults Health Status and Behaviours in New Zealand: An Application of Multivariate Fay-Herriot Model”, Small Area Estimation Conference, Poznan, Poland, September 2014.
11. Das, S., and Nesa, M.K. “Multivariate Small Area Estimation of Child Nutrition Status in Bangladesh”, ASC-IMS Conference, Sydney, Australia, July 2014.
12. Das, S., and Nesa, M.K. “Status and Predictors of Child Malnutrition in Bangladesh: A New Approach”, the 12th Annual Scientific Conference of ICDDR’B entitled ‘Health Systems Research: People’s Needs First’, Bangladesh-China Friendship Conference Centre, Dhaka Bangladesh, February 2009.
13. Nesa, M.K and Islam,S.“Fertility Decline in Bangladesh: The Trend and role of Proximate Determinants”, National Seminar on Official Statistics: Collection and Dissemination, Bangladesh Statistical Association (BSA), Dhaka, Bangladesh, April, 2008.

HILDA Survey Data and Related Outputs

User Manual

M. Summerfield, B. Garrard, R. Kamath, N. Macalalad, M. K. Nesa, N. Watson, R. Wilkins, M. Wooden, HILDA User Manual – Release 21, Melbourne Institute: Applied Economic and Social Research, The University of Melbourne, December 2022.

Participation in Workshop and Training Program

1. Training on “Introduction to the HILDA Survey”, Melbourne Institute: Applied Economic and Social Research, University of Melbourne, Australia, March 15, 2022.
2. Training on “Getting Started: Analyzing HILDA with Stata”, Melbourne Institute: Applied Economic and Social Research, University of Melbourne, Australia, June 15-17, 2022.
3. Training on “Introduction to Panel Data Analysis”, Melbourne Institute: Applied Economic and Social Research, University of Melbourne, Australia, June 20-23, 2022.
4. Workshop on “Stata, Biostatistics and Epidemiology: Theory and Application”, Global Public Health Research Foundation, Bangladesh, March 19-24, 2021.
5. Training on “Advanced Time Series Analysis” under the sub-project “Development of Teaching-Learning System of Statistics through Introducing Modern Technology-Based Programs”, Dept. of Statistics, SUST, Sylhet, Bangladesh, June 3-9, 2013.
6. Training on “Machine Learning (MATLAB)” under the sub-project ‘Development of Teaching-Learning System of Statistics through Introducing Modern Technology-Based Programs’, Dept. of Statistics, SUST, Sylhet, Bangladesh, July 24-30, 2013.
7. Workshop on “Statistical Inference in Bioinformatics” under the sub-project ‘Development of Teaching–Learning System of Statistics through Introducing Modern Technology-Based Programs’, Dept. of Statistics, SUST, Sylhet, Bangladesh, May 30-June 1, 2013.
8. International workshop on “Advanced Research Issues of Mathematics and Statistics” under the sub-project ‘Postgraduate Research Enhancement Schemes in Mathematics and Statistics’ of HEQEP-UGC, Bangladesh, Dept. of Mathematics and Dept. of Statistics, SUST, Sylhet, Bangladesh, November 15-18, 2012.

Awards and Academic Achievements

1. Student Awards: University of Wollongong, School of Mathematics and Applied Statistics: International Postgraduate Tuition Award for August 2013- January 2018, University Postgraduate Award for August 2013-February 2017.
2. BSC Scholarship/Stipend: In recognition of outstanding academic achievements and the well-deserved scholarship was awarded for 2001-2002 by Bangladesh Scholarship Council and The Nippon Foundation, Japan.
3. Scholarship/Stipend: Attained meritorious scholarships from SUST. Meritorious scholarship from University Grant Commission, Bangladesh and Meritorious scholarship from Ministry of Secondary & Higher Education, Bangladesh.