Shintaro Hagiwara

Shintaro Hagiwara completed his Master's Degree in Probability and Statistics at Carleton University in 2014. He is currently a Ph.D. candidate. He joined CQADS as statistical consultant in 2013.

Shintaro's academic interests lie in the **application of statistics** to the field of health science. He has worked with a group of epidemiologists and statisticians to extend the concept of the Signal-to-Noise Crossover Dose, a newly established methodology for determining human exposure guidelines.

As a consultant with CQADS, he has worked on projects for the Canadian College of Naturopathic Medicine, the Ottawa Hospital and the Ottawa Professional Fire Fighters Association.

RELEVANT SECTION AND/OR QUALIFICATION

- **SAA1:** Shintaro's first experience domain occurred in 2011 and he has been involved in similar projects since. For detailed information please see *Relevant Project Experience*. **Status**: MEETS QUALIFICATIONS
- **SAA2:** Shintaro received his M.Sc. in Probability and Statistics from Carleton University in 2014. **Status**: MEETS QUALIFICATIONS

RELEVANT PROJECT EXPERIENCE

Evaluation of Canadian aquariums and zoos accreditation scoring procedure (Feb '14 - Aug '14)

Project Description

- Investigated the current accreditation scoring procedure used by Canada's Accredited Zoos and Aquariums (CAZA).
- Suggested and implemented a new scoring model.

Related Reports and Presentations

- Hagiwara, S., Boily, P. (2014) Evaluation of CAZA's Accreditation Scoring Procedure, *Canada's Accredited Zoo and Aquariums*, Ottawa, Canada – REPORT.

Covariance analysis of irritable bowel syndrome study data (Mar '13 - Present)

Project Description

- Covariance analysis conducted on the data collected by the Canadian College of Naturopathic Medicine (CCNM) to determine the effect (if any) of an agent on Irritable Bowel Syndrome.
- Made suggestions for experimental design of second phase.
- Currently analyzing the data from second phase.

Related Reports and Presentations

- Hagiwara, S., Boily, P. (2013) Covariance Analysis for the 2010 CCNM Pilot Study on Irritably Bowel Syndrome, *Ottawa Integrative Cancer Center*, Ottawa, Canada – REPORT.

Longitudinal analysis of weight trajectories in a Canadian study of the effect of a low-calorie diet program (Apr '14 - Present)

Project Description

- Analyzing the weight trajectories for roughly 2000 patients undergoing the low-calorie diet program to determine the time to failure for different demographic groups (using growth mixture models).

Attainability of sick leave objectives and assessment of the recording of training hours for the Ottawa Professional Firefighters Associations (Jan '14 - Present)

Project Description
- Investigating and modeling the effect of the current 24-hour shift on the rate at which leaves of all kinds are being taken.

Theoretical formulation of the Signal-to-Noise crossover dose in toxicology data (Jul '12 – May '14)

Project Description
- Built the theoretical foundations for the Signal-to-Noise Crossover Dose for the National Toxicology Program.
- Discovered that departures from the optimal experimental design are linked with unjustifiable human exposure rates.

Related Reports and Presentations
- Hagiwara, S., Farrell, P., Krewski, D. (in preparation) – PUBLICATION.
- Hagiwara, S. (2014) Theoretical Considerations in the Estimation of the Signal to Noise Crossover Dose (M.Sc. Thesis), *Carleton University*, Ottawa, Canada. – THESIS.

Comparison of various imputation methods (Apr '11 - May '12)

Project Description
- Conducted literature review on existing imputation methods.
- Selected three methods and compared their efficiency m under different scenarios.

Related Reports and Presentations
- Hagiwara, S. (2012) Nonresponse error in Survey sampling: comparison of different imputation methods, *Carleton University,* Ottawa, Canada – HONOURS PROJECT.

RELEVANT ANALYSIS, MODELING AND SIMULATION SKILLS AND COMPETENCIES
- Detail-oriented data processor and analyzer
- Experience with the following data and statistical analysis and software: SAS, R, Minitab

CHRONOLOGICAL WORK EXPERIENCE
- **Statistical Analyst**, *Centre for Qualitative Analysis and Decision Support* (Mar '13 - Present)
- **Research Assistant**, *McLaughlin Centre* (Jul '12 - Present)

LIST OF PRESENTATIONS, PUBLICATIONS AND REPORTS
Thesis
- Hagiwara, S. (2014) Theoretical Considerations in the Estimation of the Signal to Noise Crossover Dose (M.Sc. Thesis), *Carleton University*, Ottawa, Canada.

Reports
- Hagiwara, S., Boily, P. (2014) Evaluation of CAZA's Accreditation Scoring Procedure, *Canada's Accredited Zoo and Aquariums*, Ottawa, Canada.
- Hagiwara, S., Boily, P. (2013) Covariance Analysis for the 2010 CCNM Pilot Study on Irritably Bowel Syndrome, *Ottawa Integrative Cancer Center*, Ottawa, Canada.
- Hagiwara, S. (2012) Nonresponse error in Survey sampling: comparison of different imputation methods, *Carleton University,* Ottawa, Canada.

EDUCATION
- Ph.D. Candidate. (Probability and Statistics), *Carleton University*
  Expected graduation date: April 2018
- M.Sc. (Probability and Statistics), *Carleton University*, 2014
- B.Math (Mathematics and Statistics), *Carleton University*, 2012