

## ACKNOWLEDGEMENT

I am grateful to numerous "peers" who have contributed towards shaping this thesis.

At the outset, I would like to express my appreciation to my guide, Dr. Sirimavo Nair for her advice during my doctoral research endeavour for the past four years [2008-2012]. It was indeed a great honour and pleasure working with the most experienced mentor in the department in field of iodine research. As my guide, she has constantly forced me to remain focused on achieving my goal. Her observations and comments helped me to establish the overall direction of the research and to move forward with my research in depth. I had a great freedom to plan and execute my ideas in research without any pressure. This made me to identify my own strength and drawbacks, and particularly boosted my self-confidence. I thank her for providing me with the opportunity to work with a talented team of researchers [Juhi Agarwal, Kejal Joshi and Mital Joshi]. I am thankful to you for making me what I am today.

I would also like to thank my former advisor Prof. Rita Singh Raghuvanshi [Dean, College of Home Science, G. B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand] who helped me to start my doctoral research at M. S. University of Baroda. Soon after I finished my M.Sc. vivavoice on 4 August 2008 at Pantnagar, I was able to join on 11 August 2008 at M S University of Baroda for my Doctoral research. Madam, you have inspired me and gave me a new direction for my academic career. You are the reason for my deep interest in doing research in this particular micronutrient.

I am thankful to UGC for proving me financial support in the form of research fellowship, RFSMS scheme- Research Fellowship in Science for Meritorious Students.

I am grateful to Prof. Pallavi Mehta (Former Head), Prof. Uma Iyer (Head), other faculty members including laboratory technicians and support staff in the department for providing me basic facilities to carry out my laboratory research work in the department.

My heartfelt thanks to Dr. R. N. Mehta, Chief District Medical Officer cum Civil Surgeon for permitting us to carry out our research work at Jamnabai General Hospital, Mandvi Vadodara. I am extremely grateful to all the staff, especially gynaecologists, paediatrician, PPTCT counsellors, nurses, laboratory technicians and support staff.

Heartfelt gratitude goes to Prof. M.G.R Rajan and Mrs. Chandrakala Khede [BARC, Radiation Medicine Centre, Tata Memorial Hospital, Parel, Mumbai] for proving laboratory facilities for thyroid hormone analysis and also to Prof. M. G. Karmarkar [President ICCIDD laboratory, AIIMS, New Delhi] and office bearers for providing training for urinary iodine analysis. I am grateful to Prof. M. M. Godbole and Dr. Ujjwala Godbole for proving facilities at Molecular Diagnostics Laboratory, Lucknow for urinary iodine estimations. Thanks go to Ankur Chem. Foods Pvt. Ltd, Gandhidham for providing Double Fortified Salt to us.

I am extremely thankful to my unofficial co-researchers Mr. Hardik Kapadia for helping me with my home to home DFS supplementation, right from Gotri to Ajwa road and accompanying me to hospital for cord blood collection during odd hours and Mrs. Rajeshwari Kapadia for helping me with my phone calls to my subjects in Gujarati (local language).

Special thanks to my present and ex colleagues with whom I have enjoyed my past four years, starting from Juhi Agarwal, Mital Joshi, Neha Gupta, Pooja Gaur, Aakansha Mahendra, Trushna Bhatt, Nitya Elayath, Ashima Gupta and Vijayata Sengar.

I greatly appreciate Hardik Kapadia and Hema Matela for their generous time in proof reading.

I am grateful to Prof. Dileep V. Mavalankar (Director –Indian Institute of Public Health Gandhinagar), Dr. Gulrez Shah Azhar and Dr. Monika Setia, my project supervisors for giving me "work from home permit" as and when I requested. Without their support I could not have written my thesis within my set dates.

I want to thank my parents (Rana's and Kapadia's) for their kind support, the confidence and the love they have shown to me. I am blessed to be your daughter. I also would like to thank my beloved sisters for being my strength and understanding me well in various situations.



I also thank many "unseen hands" which contributed to this work directly or indirectly.

It was indeed a great honour and pleasure working in this prestigious "Department of Foods and Nutrition", Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda.

Werne

**Ritu Rana** (Mrs. Ritu Hardik Kapadia)

September, 2012