



GIVING THANKS

The holiday season is upon us! Now comes the time of the year when we can look back at what we have accomplished, while also looking ahead to what we can achieve in the future. With our hectic schedules, we often forget the specifics of projects we've managed to tackle or how often we have participated in certain activities. You may find yourself looking back at the year and asking yourself "How many questionnaires have we filled out?" or "How many exams have we participated in?" With the Iowa Fluoride Study entering its seventeenth year, we find ourselves looking back at how much we have been able to accomplish and we recognize that we owe all of our great achievements to you! Without the time and energy you and your families

have committed to completing questionnaires and attending dental and bone exams, we would not be where we are today! With the end of the year quickly approaching, we would like to share some data regarding time and numbers for the Iowa Fluoride and Iowa Bone Development Studies.

The numbers say it all! To date, this is what we have accomplished:

- 698 Five-year dental exams Eight-year dental exams 630 499 Thirteen-year dental exams 22.584 Completed and returned questionnaires 958 Parent bone exams
- Five-year bone exams 471
- 539 Eight-year bone exams 483
 - Eleven-year bone exams
- 474 Thirteen-year bone exams
- 2.221 Activity monitor studies



BOTTLED WATER USE

Since most commercially bottled water has very little fluoride, dental health professionals have wondered if the recent trend in increased use of bottled water would eventually lead to more dental caries (cavity) problems. The Iowa Fluoride Study has had an article published comparing cavity rates among those using 25% or more bottled water to rates among tap water users (as reference group) using results from the age 5 and age 8 dental exams. We did not find any statistically significant differences in dental caries rates (cavities and fillings). But we did find some slight trends of more tooth decay for those drinking bottled water. However, since not many children used bottled water at ages 5 and 8, we plan to re-analyze the results using the age 13 dental exams to re-assess this. Our analyses also found fewer cavities and fillings for those with greater frequency of tooth brushing with fluoridated toothpaste.

MEET the STAFF



Oitip Chankanka is a graduate student who is working with the study. She is analyzing Iowa Fluoride Study data assessing the relationships between beverages/foods and dental cavities. Oitip is also writing reports that will be submitted to scientific journals. Oitip is originally from Thailand. She received her DDS and MSc (Pediatric Dentistry) degrees in Thailand and was a faculty member in Preventive Dentistry/Pediatric Dentistry at the Prince of Songkla University in Thailand. She is currently pursuing her PhD in Oral Sciences from the College of Dentistry.

Cena Jones is a Research Assistant who joined the Study in August of this year. At present, she sees subjects at their CRC appointments, handles financial aspects of the study, works with the Human Subjects Office, coordinates major aspects of the Study and personnel, and writes/edits this newsletter. Cena grew up in Council Bluffs, Iowa and graduated from the University of Northern Iowa with a Master's degree in Public Policy. Her hobbies include traveling, reading, running and spending time with friends and family.





Mike Mueller is a Database Administrator at the College of Public Health who has been involved with the Study from the beginning. Mike maintains the computer systems and files used to store study data. Originally from Sutherland, Iowa he graduated from the University of Iowa with a BS in Computer Science and has been in his position at the University since 1987. In his free time, Mike enjoys spending time with his wife who is the Chief Ultrasound Technician at the University of Iowa Hospitals and Clinics and his three children who are aged 13, 19, and 22.

FAREWELLS

Congratulations to **Dr. Julie Gilmore**! In November, she joined the Institute for Clinical and Translational Science at the University of Iowa College of Medicine as the Lead Research Coordinator Dr. Gilmore joined the Iowa Fluoride Study/Iowa Bone Density Study eleven years ago, and worked on bone data for her PhD dissertation focus. For the past several years, she has served as the projects' coordinator and co-investigator. She has provided leadership for many aspects of the research, including grant planning, protocol development, and preparation of manuscripts; she will continue to serve as a consultant for the Iowa Bone Development Study as she assumes her new duties. While Dr. Gilmore will be sorely missed, we wish her every success in her new endeavors!



Marlys Dunphy, a Research Assistant with the Iowa Fluoride Study/Iowa Bone Development Study, retired from the University in January of this year. She had been with our research team for 8 years and was mainly responsible for working with the nutrition parts of the studies. In addition, she helped with the research exams at CRC, handling some financial aspects of the studies and

working with the Human Subjects Office. In retirement, she hopes to travel, read more and catch up on lots of craft projects that she enjoys.



Pradeep Bhagavatula is a Graduate Research Assistant with the study. His primary role is to assist with the dental exams and collection of saliva and plaque samples. He is currently working on his MS in Dental Public Health and planning to graduate this fall semester. Recently, Pradeep accepted a faculty position in the Department of Clinical Services at Marquette University School

of Dentistry and will be starting there on December 1, 2008. Pradeep was married last year and his wife, Sirisha, is also a dentist from India.



Dr. Rahul Nair served as a graduate student research assistant with the Iowa Fluoride Study for several years, primarily assisting with dental exams and tooth impressions. He completed his MS degree in Dental Public Health this past year and joined the faculty as an Assistant Professor in the National Dental College at the University of Singapore. Recently, Pradeep accepted a

faculty position in the Department of Clinical Services at Marquette University School of Dentistry and will be starting there on December 1, 2008



GRANT STATUS

We would just like to let you know that we are working aggressively to continue to secure additional grant funds to keep the Iowa Fluoride Study/Iowa Bone Development Study going. We received special funding from the College of Dentistry and University of Iowa to support some of the "Bone Study" activities this year. We have just submitted a new grant application to the National Institutes of Health (NIH) requesting funding to conduct age 17 bone exams and associated analyses. Also, we just received word that another grant is being funded by the Delta Dental of Iowa Foundation to help support our "Bone Study." Our current NIH funding for the Iowa Fluoride Study dental grant continues through next year, and we're working to submit another grant application this winter to NIH for our dental studies..

Thank you for your continued participation in our studies. We hope to keep receiving grant funding to continue our work over the next few years. As always, we will keep you informed.

WHAT'S COMING...



Over the years, we have been led to believe for one reason or another that if you follow your dentist's recommendations for dental care, you will have fewer cavities. New evidence has suggested that, in addition to drinking fluoridated water, eating a healthy diet, and brushing/flossing your teeth, there is a genetic component to cavity development. GWAS stands for "Genome-Wide Association Study," which means that all different parts of the human genome are studied in new, very complex lab analyses. We are collaborating with Mary Marazita and colleagues at the University of Pittsburg on the study of cavities, genetics, and other factors. Our project is one of only ten studies nationally prioritized by the National Institutes of Health (NIH). This special study is the reason we contacted you to obtain special consent to use your genetic sample and other data.

Again, we are very thankful for all your contributions in making our studies so successful! We are almost finished with our age 13 dental and bone exams which are being conducted on the youngest part of our study group. Also, we're well into the process of conducting the age 15 bone exams. We are almost done with the collection of motion sensor (physical activity) data collection for this year as well. We're continuing to collect questionnaire data by mail, while doing initial planning for the cycle of age 17 bone and dental exams scheduled to begin in summer or fall 2009.



HIPS DON'T LIE

One of our recent contributions to the scientific literature featured some of your hips! For years, bone densitometry professionals have used the standard analysis software that comes with bone scanner units, regardless of the age of the person receiving the scan. We used hip scans from the Iowa Bone Development Study to show that this doesn't make sense. The software relies on certain bony landmarks that are not apparent until the bone is fully matured. Under the direction of Dr. Julie Gilmore, our study developed a modified pediatricspecific hip analysis protocol.

We used the scan measurements of 214 children at approximate ages 5, 8, 11, and 13 years and compared the standard protocol to our new one. The results showed "hands down" that our procedure was superior. Dr. Gilmore presented the data at the American Society of Bone and Mineral Research meeting in Montreal, Canada earlier this year and the manuscript will be available early next year.

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The study team wishes you a happy holiday season!

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