

“Offering solutions to the challenges of dietary assessment for over 35 years.”

Quarterly

Nutrition Coordinating Center



Take a look inside »

Take a Ride in a Time Machine	2
NCC Provisional Table 2010	2
Take a Bite	3
Ask Priscilla & Ask Huong	3
New Foods	4
NDSR's Been Spotted	4

Protocol Considerations and Quality Assurance Updated in the Manual

Appendix 12 of the [NDSR 2010 User Manual](#) has been updated and expanded to include information and guidance for researchers regarding protocol considerations involved in the collection of data, and also for development of a quality assurance plan and utilization of quality assurance reports.

The appendix discusses factors that affect the selection of a diet assessment method and general protocol considerations for collecting 24-hour recalls or food records.

The quality assurance aspects of NDSR have been enhanced in the 2010 version, and report descriptions and specifications are provided for the QA Reports.

The Appendix 12 section “Utilizing Reports in the Quality Assurance Process” may assist researchers to develop (continued on Page 2)

NDSR 2010 Released!

All NDSR users with an annual support contract were recently sent the latest version of the Nutrition Data System for Research; NDSR 2010, released June 29th.

Again this year, the process of upgrading was streamlined by providing each supported client with the appropriate number of NDSR 2010 CDs and the necessary License Upgrade Agreement. Clients need only return the signed agreement, install NDSR, and contact NCC for their passwords.

NDSR 2010 is supported for use on Windows 7, Vista and XP. Windows 7 and Vista installations have additional post-installation instructions. For installation instructions, see Chapter 2 of the NDSR 2010 User Manual, available upon installation to your hard drive and on [NCC's website](#).

Users may also request a hardcopy of the User Manual. If you have not received your package with NDSR 2010, please contact NCC Client Services.

Why Upgrade to NDSR 2010?

There are over 200,000 good reasons why researchers should choose to upgrade to NDSR

2010, as 200,000 is the approximate number of changes made to the NCC Food and Nutrient Database annually!

Each new version of the database contains updates made to reflect changes in the marketplace, such as the introduction of new products, the reformulation of existing products, changes in packaging, units specific to a food, revisions in package size, and the removal of products that are no longer found in the marketplace.

Collection of dietary intake data using current market information is essential to nutrient data quality and the overall integrity of the data set. To support the important need for studies to continually upgrade to the latest version, the NCC Food and Nutrient Database maintains a unique time-related feature within NDSR to control comparability of dietary data over time.

Time-related maintenance procedures are conducted as a fundamental aspect of NCC database updates, to allow researchers to recalculate previously collected food records to enrich their data set with the addition of new nutrient fields that have been added to the database since the time that their dietary

Want to Take a Ride in Our Time Machine?

As many of you know NCC has been around for a long time (35 years and counting). What you may not know is that our longevity presents some unique research opportunities for those interested in tracking changes in the food marketplace over time.

To illustrate what is possible using archival NCC Food and Nutrient Database information we took a look at trends in the fatty acid composition of frying oils used at five leading fast food restaurants between 1997 and 2008 using French fries as a proxy indicator.

Major reductions in the *trans* fatty acid composition of French fries occurred over this time period at 3 of the 5 restaurant chains examined. The changes at all three chains occurred between 2005 and 2008.

Interestingly, the saturated fatty acid content of the fries at these chains decreased concomitant with the *trans* fat reductions. These results are very encouraging from a public health perspective as they suggest that the restaurant industry is responding in a positive manner to public health concerns related to *trans* fatty acids.

Interested in accessing archival database information to track other trends in the food marketplace? Please call us to learn more about our archival data.

Updated in the Manual... (continued from Page 1)

and incorporate these reports into a study specific quality assurance protocol.

If you are planning a new study, you may find the information in this updated appendix useful.

NCC Flavonoid and Proanthocyanidin Provisional Table 2010

Since 2005, NCC Database Scientists have created and maintained an NCC Flavonoid and Proanthocyanidin Provisional Table. The table provides a way for NDSR users to link the provisional USDA data with NDSR data via NDSR food IDs.

Now available for \$895.00, the 2010 version of this table is updated for the NDSR 2010 foods and is based on the *USDA Database for the Flavonoid Content of Selected Foods, Release 2.1* and *USDA Database for the Proanthocyanidin Content of Selected Foods-2004*. Documentation and data sources for these USDA Special Interest Databases can be viewed at the [USDA Nutrient Data Laboratory website](http://www.ars.usda.gov/Informational/Databases/USDA%20Special%20Interest%20Databases/).

The NCC Flavonoid and Proanthocyanidin Provisional Table 2010 provides provisional values for 955 NDSR foods. The provisional values include 26 flavonoids grouped into 5 categories and 6 classes of proanthocyanidins, which are polymers of flavan-3-ols. Congruent with the USDA data available, many foods in the NCC table have missing values, and not all foods have both flavonoid and proanthocyanidin data assigned.



NDSR 2010... (continued from Page 1)

intake data were collected.

Of ultimate importance is that this NDSR time-related feature functions to protect food formulations from revisions that are contrary to the database version in which they were collected. For example, during an upgrade to a new NDSR version, data collected in an earlier version will retain the food formulations and nutrient information specific to the database version in which they were collected, while capturing nutrients newly added to the database for those same foods. In addition, data collected in an earlier version once restored into NDSR 2010, may be included by investigators in reports such as the new 2010 Quality Assurance Reports.

If you're still wondering if upgrading to NDSR 2010 is right for your study, please contact NCC Client Services.

UPCOMING NDSR TRAINING SESSIONS

NCC offers a monthly comprehensive training and certification program for those who license NDSR.

The next available trainings are:

August 16 & 17, 2010 September 13 & 14, 2010 October 11 & 12, 2010

For more information or to register visit the [NCC Training page](#).

NCC PRESENTED AT THE...

[34th National Nutrient Databank Conference](#)

July 12-14, 2010 • Grand Forks, ND

Bhaskarani Jasthi, PhD, RD; Sally F. Schakel, RD; Lisa Harnack, DrPH, RD; and Denise King, PhD. Addition of Conjugated Linoleic Acid (CLA) to a Food and Nutrient Database.

Lisa Harnack, DrPH, RD; Michael Oakes, PhD; Simone French, PhD; Dana Cordy; Matt Montgomery; Janet Pettit; and Denise King, PhD. Trends in the fatty acid composition of frying oils used at leading fast restaurants over the past 12 years based on French fries as a proxy indicator.

Lisa Harnack, DrPH, RD; Janet Pettit; Dana Cordy; Roberta Zeug Shell; and Denise King, PhD. Accuracy of whole grain composition estimates derived from formulations created for a sample of whole grain containing commercial food products.

Mayly Y. Thor, RD; Lisa Harnack, DrPH, RD; Bhaskarani Jasthi, PhD, RD; and Denise King, PhD. The challenges of incorporating chromium into a nutrient database.

[IFT Annual Meeting & Food Expo](#)

July 17-20, 2010 • Chicago, IL

Sarah J. Johnson; Denise L. King; and Lisa J. Harnack. Comparison of nutrient and ingredient information on food product packaging with information provided online by food manufacturers. (Accepted for poster presentation)

Ask Priscilla



What foods were added to NDSR 2010?

Over 1,100 foods were added to our database this year!

The quickest way to view the new foods is to open the Foods 2010 File in Excel format (see [Appendix 18](#) for Foods File location). Next, sort the file (found under the Excel data menu) by the Food ID column. Food ID 112205 was the first food added to NDSR 2010.

By scrolling down the file, you'll notice that NCC added many commercial entrees, ready-to-eat cereals, salad dressings, infant formulas, soups, helper mixtures, special formulated products and fast foods.

Nutrition Question?

Ask Priscilla at harala@umn.edu.

Ask Huong



I'm getting a new computer. What should I do with NDSR?

Before letting tech-support take over, make sure you backup all NDSR data and store it in a safe place.

Next call NCC to unregister the license, a process similar to getting a password. Uninstall NDSR on your old computer, then install it on your new computer and contact NCC for a new password. If your new computer has a Windows 7 or Vista platform, make sure to review the post-installation instructions in the [2010 User Manual](#).

As always, if you have any questions, call me!

Technical Question?

Ask Huong at duong001@umn.edu.



Take a Bite:

What's New in Nutrition. The news and trends that NCC is following.

Thirsty? Reach for a Coconut Water

Coconut water isn't just trendy, it's a great rehydrater.

Coconut water is extracted from a fruit that is too young to have formed milk. The end result is a beverage that is low in calories and fat, and has a lot less sugar than most juices.

It was ten years ago when the U.N.'s Food and Agriculture Organization (FAO) was granted a patent for bottling coconut water in a way that preserves its nutrients. During this time a FAO official discovered that coconut water contains five of the same electrolytes found in human blood (Gatorade only has two).

When you are dehydrated your body has difficulty absorbing water, this is where electrolytes help according to Lilian Cheung, a nutrient expert at the Harvard School of Public Health.

Coconut water has caught on in the U.S. with sales topping \$50 million last year. Even Coca Cola and Pepsi have bought into two of the top three brands, Zico and O.N.E.

Coconut water is included in NDSR 2010's database.

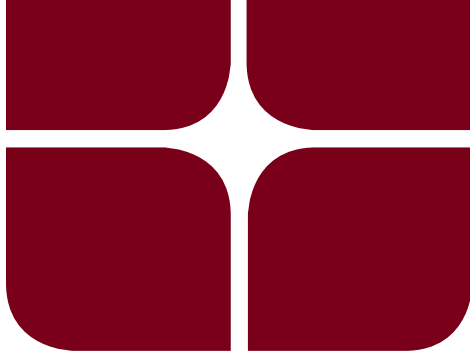
Food Manufacturers are Adding Fiber Using Novel Ingredients

In recent years, food manufacturers have found ways to boost fiber in a variety of foods, everything from yogurt to soup, using novel fibers such as inulin.

Food manufacturers could fortify their foods with traditional sources of fiber. Unfortunately traditional fiber would lend food a gummy or cardboard consistency and a brownish tint that could be off putting to consumers. As a solution food manufacturers have turned to natural fibers, such as inulin, that impart no color and aren't as viscous or gritty.

Inulin is a new-breed fiber extracted from the roots of the chicory herb. It can be, and has been, added to a host of products because of its little impact on taste and texture.

The list of companies offering fiber-enhanced products is growing; General Mills, Kellogg's, Campbell's, and Splenda are just a few making the list.



NDSR's Been Spotted

In the over 35 year history of the Nutrition Coordinating Center, thousands of research articles have been published based on data calculated using the NCC Food and Nutrient Database and the Nutrition Data System for Research (NDSR). Listed below are some references we found during the previous year. If you would like us to list your publication(s), please contact NCC Client Services.

Baxter, S. D. Fourth-Grade Children's Dietary Recall Accuracy Is Influenced by Retention Interval (Target Period and Interview Time)." *Journal of the American Dietetic Association* 109 5 (2009): 846.

Cavicchia, P. P. "A New Dietary Inflammatory Index Predicts Interval Changes in Serum High-Sensitivity C-Reactive Protein. *J of Nutr.* 2009; 139 12: 2365.

Evans, A. The Relationship Between the Food Environment and Fruit and Vegetable Intake of Adolescents Living in Residential Children's Homes. *Health Education Research.* 2009; 24 3: 520.

Morey, M. C. Effects of Home-Based Diet and Exercise on Functional Outcomes Among Older, Overweight Long-Term Cancer Survivors: Renew: A Randomized Controlled Trial. *JAMA.* 2009; 301 18: 1883.

Noel, S. E. A Traditional Rice and Beans Pattern is Associated with Metabolic Syndrome in Puerto Rican Older Adults. *J of Nutr.* 2009; 139 7: 1360.

Schroeder, N. Influence of Whole Grain Barley, Whole Grain Wheat, and Refined Rice-Based Foods on Short-Term Satiety and Energy Intake. *Appetite.* 2009; 53 3: 363.

Stuff, J. E. N-Nitroso Compounds: Assessing Agreement between Food Frequency Questionnaires and 7-Day Food Records. *J of the Am Diet Assc.* 2009; 109 7: 1179.

Photo Credits: Front page ©iStockphoto.com/RuthBlack; Page 2 ©iStockphoto.com/MistikaS; Page 3 ©iStockphoto.com/vtupinamba; Page 4 ©iStockphoto.com/adamkaz



New Foods

The following foods are included in the NCC Quarterly Summer 2010 New Food Backup File, available for download on our [website](#).

New Food backup files are user-recipe projects that may be saved to your computer's hard drive and then restored to NDSR 2010.

If you have questions about New Foods, contact Roberta Zeug Shell at 612- 625-2052 or zeugx001@umn.edu or Sue Seftick at 612-624-0223 or sefti001@umn.edu.

Glaceau Vitaminwater –

- Power C, Dragonfruit
- Energy, Tropical Citrus
- Focus, Kiwi-Strawberry
- XXX, Acai-Blueberry-Pomegranate
- Revive, Fruit Punch
- Multi-v, Lemonade
- Essential, Orange-Orange
- Formula 50, Grape
- Defense, Raspberry-Apple
- Dwnld, Berry-Cherry
- Connect, Black Cherry-Lime
- Spark, Grape-Blueberry

Glaceau Vitaminwater Zero –

- Rise, Orange
- XXX, Acai, Blueberry-Pomegranate
- Squeezed, Lemonade
- Revitalize, Green Tea
- Mega-C, Grape-Raspberry
- Recoup, Peach-Mandarin
- Go-Go, Mixed Berry



NDSR License Amendments

Amendments to the NDSR License Agreement are available to meet the specific needs of clients.

The University of Minnesota requires NDSR License Amendments before NDSR users:

- network the software
- use NDSR to develop a database and/or maintain a food frequency questionnaire (FFQ)
- use NDSR for commercial or fee-for-service activities such as entering records or collecting 24-hr recalls for a fee
- publish NDSR nutrient values in any format
- receive NDSR upgrades (program and database)

Please contact Priscilla Harala at 612-626-9466 for more information about the license amendment options that will best suit your needs or if you have any questions regarding the limitations of your NDSR license agreement.

HOW TO CONTACT NCC

HOURS

8:00am-4:00pm (Central Time) M-F

CENTRAL NCC LINE

612-626-9450

NCC CLIENT SERVICES CONTACTS

Priscilla Harala: 612-626-9466

Huong Duong: 612-626-9429

NCC FAX: 612-626-9444

NCC EMAIL: ncc@epi.umn.edu

NCC WEBSITE: <http://www.ncc.umn.edu>

UNIVERSITY OF MINNESOTA



Credit Cards now being accepted for invoice payments!

All major cards accepted.

Electronic mail (email) is not secure, may not be read every day, and should not be used for urgent or sensitive issues. When in doubt, please call NCC Client Services to verify receipt of an email.

