



DRI, RDAs, EARs, and AIs: What is a Dietitian to Use?

by Barbara Wakeen, MA, RD, LD, CCFP

This was the hot topic at the Dietitians in Corrections Networking Luncheon at the ACFSA International Conference in Charleston, SC. In reference to the Dietary Reference Intakes (DRIs), if 100% cannot be achieved, what is considered acceptable to approve menus for nutritional adequacy; should we use the EARs instead? (Note: see the table below references definitions of these acronyms.) This has been an ongoing discussion on the dietitians' listserv since early spring. After many queries to government agencies and higher authorities, we still don't have a clear answer on what are the best values to use for our controlled populations. To date, I am awaiting clarification from the Ameri-

can Dietetic Association as to how best interpret and use the DRI's for menu approvals for our populations.

To put this in perspective...

Our correctional menus are approved by a registered and/or licensed dietitian; this practice is reflective of most governmental policy and nationally recognized standards. The basis of approval is most often a computerized nutritional analysis, ideally reflecting the specific food items and recipes we serve. The goal is to ensure nutritionally adequate menus based on nationally recognized standards, ideally using the

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Current Dietary Reference Intakes (DRI) Components

DRI Component	Description
Estimated Average Requirement (EAR)	Reflects the estimated median requirement and is particularly appropriate for applications related to planning and assessing intakes for groups of persons.
Recommended Dietary Allowance (RDA)	Derived from the EAR and intended to cover the requirements for 97-98 percent of the population.
Tolerable Upper Intake Level (UL)	Highest average intake that is likely to pose no risk.
Adequate Intake (AI)	Used when an EAR/RDA cannot be developed; average intake level based on observed or experimental intakes.
Acceptable Macro-nutrient Distribution Range (AMDR)	An intake range for an energy source associated with reduced risk of chronic disease.

Sheffer, M., Taylor, C. 2008. The Development of DRIs 1994-2004: Lessons Learned and New Challenges: Workshop Summary. Current Dietary Reference Intakes (DRI) Components. Page 3. <http://www.nap.edu/catalog/12086.html>



DRIs and RDAs along with any other governing agency standards, i.e. 2005 Dietary Guidelines, MyPyramid Food Guidance System, ACA Standards, NCCHC Standards, NSLP/SBP, Title 15-California, North Carolina Administrative Code, special meal patterns, etc.

Most correctional standards and policies reference meeting the “dietary allowances” and are interpreted as the Recommended Dietary Allowances (RDAs). Historically, these *were* the nationally recognized standards, but are now one of three sets of nutrient values expressed as part of the DRIs. In addition, these correctional standards do not specify meeting 100% of the dietary allowances. Although we strive for this as dietitians, this is not always possible to achieve. The main reason for this disparity is the limited nutrient data required on Nutrition Facts panel when we use product-specific nutrient data in our analyses. Additionally, with budget constraints and steadily increasing prices, we are challenged to be more ‘creative’ in meeting nutritional needs in terms of overall cost per nutrients.

The Food and Drug Administration (FDA) dictates the vitamins, minerals, and other nutrients for which manufacturers are liable in labeling Reference Daily Intake (RDI), but manufacturers are only required to identify 15 nutrients on Nutrition Facts panels. When facility-specific food items are added to the nutritional analysis database with these limited nutrients, our nutritional analysis may show some nutrient deficiencies that might otherwise be present with more complete nutrition information available.

This is an ongoing challenge for dietitians when providing a statement of nutritional adequacy for menu approval. We can request additional database information from the food vendor or manufacturer, but sometimes it is not available. As a result, we often add a disclaimer to the nutrition statement about the

Meetings and Announcements

The 3rd Edition Nutrition and Food Service Management in Correctional Facilities (formerly the Correctional Food Service and Nutrition Manual) is now available. For more information visit: www.cdihcf.org/products/item#5023.

NCCHC Updates in Correctional Health Care

April 4-7, 2009

Las Vegas, NV

For more information visit www.ncchc.org

Membership Information

If you would like to be added to the Dietitians in Corrections networking EML (electronic mailing list), please email me directly at bwakeen@neo.rr.com. This is an informal discussion group and your name/email address will be listed in each email sent to the group.

If you are interested in joining the Corrections Sub-unit or if you are already a member and want to subscribe the Corrections Sub-unit EML or be listed in the directory, visit the CD-HCF website at www.cdihcf.org. Emails communicated through this group sent through a private email address.

deficient nutrients limited by incomplete nutrient database information available.

This is an ongoing challenge for dietitians when providing a statement of nutritional adequacy for menu approval. We can request additional database information from the food vendor or manufacturer, but sometimes it is not available. As a result, we often add a disclaimer to the nutrition statement about the deficient nutrients limited by incomplete nutrient database information available.

This brings us full circle to the overall concerns of meeting 100 % of the nutrient standards.

In our governmental and authoritative queries, the responses referenced the many corrections-specific resources and organizations, and leaned toward using the EARs for analysis comparisons for groups. The RDAs were not recommended for use in menu planning for groups. Comparisons of the EAR values to the RDA values indicated that the EARs are approximately 80 % of the RDA.

- Does this mean that 80 % of the RDA is an acceptable value?
- Should we use 100 % of the EAR?
- There are some nutrients for which an EAR does not exist yet; for these, the AIs are used. This is one more value to consider.

Reference Sources, outside of corrections provided by some of the authorities (including American Dietetic Association, National Academy of Sciences and USDA) included:

- Dietary Reference Intakes: Applications in Dietary Planning (<http://www.iom.edu/CMS/3788/4003/4733.aspx>)
- Dietary Reference Intakes: Applications in Dietary Assessment (www.nap.edu/catalog/9956.html)

- Dietary Reference Intakes: The Essential Guide to Nutrient Requirements (Dietary Reference Intakes) 2006, by editors Jennifer J. Otten, Jennifer Pizzi Hellwig, Linda D. Meyers

- www.iom.edu/driworkshop2007

- <http://www.iom.edu/Default.aspx?id=49044>

- http://fnic.nal.usda.gov/nal_display/index.php?info_center=4&tax_level=4&tax_subject=256&topic_id=1342&level3_id=5141&level4_id=10595

- http://www.nap.edu/catalog.php?record_id=11537

Within corrections, many of our organizations and resources were also referenced by these authorities:

- ACFSA
- Academy of Correctional Health Professionals (<http://www.correctionalhealth.org/index.asp>)
- Bureau of Prisons (www.bop.gov)
- CD-HCF Corrections Sub-unit (www.cdchcf.org)
- National Commission on Correctional Health Care (<http://www.ncchc.org/index.html>)
- National Institute of Corrections: (<http://www.nicic.org/>)
- Correctional Food Service and Nutrition Manual, 2nd Edition

These acknowledgements represent real progress in the recognition of correctional resources by governmental regulators and overseers.

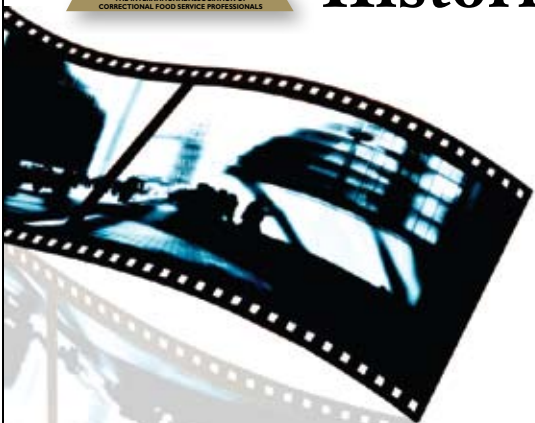
In summary, there are no conclusions at this time. Look for a continuation in the next INSIDER on the follow-up clarification from the American Dietetic Association.

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Do you have...

Old ACFSA Pictures or Historical Accounts?



Do you have old pictures or written accounts that provide details into the past history of the ACFSA?

If you do, please email Lavinia Johnson: lavinia48@aol.com so she can compile a history for the 2009 ACFSA International Conference.