April 14, 2014
Volume 9, Issue 2

Healthy Aging Update

IowaAging.gov

The Link to Nutrition Program and Healthy Aging Information

In this Issue:

Lack of Access to Food Among Seniors Can Cause Severe Health Consequences

The *Spotlight on Senior Health: Adverse Health Outcomes of Food Insecure Older Americans* research study identifies that the health and nutrition implications of food insecurity among older adults. Food insecurity in older adults is associated with lower nutrient intake and an increased risk for chronic health conditions.

Compared to food secure seniors, food insecure seniors are:

- 60 percent more likely to experience depression
- 53 percent more likely to report a heart attack
- 52 percent more likely to develop asthma
- 40 percent more likely to report an experience of congestive heart failure

Food insecure older adults had intake levels lower than food secure older adults by 25% for vitamin C, 18% vitamin A and vitamin B6, 14% for iron and 12% for protein. Many of these nutrients are known to be important to the health of the older adults. In addition, food insecure older adults are 22 percent more likely to experience limitations in their Activities of Daily Living (ADLs).

Older adults were also found to have more negative health and nutrition implications of food insecurity compared to other adult age groups. This is a growing program as between 2001 and 2011, nationally the number of food insecure seniors more than doubled.

More information can be accessed in the recently released *Spotlight on Senior Health* Executive Summary (PDF, 4.5 MB) or *The Spotlight on Senior Health: Adverse Health Outcomes of Food Insecure Older Americans*.

The OAA nutrition program helps address food insecurity, reduces risk of lower nutrient intake and resultant health problems.
Of the Iowa congregate meal participants who are at high nutrition risk, 62% improved their nutrition risk scores. Of those with three of more ADL limitations, 67% have improved. *IAPRS 2013*

Looking for Ways to Prioritize Meal Participants: Consider Assessing for Food Insecurity

The following questions are a reasonable measure of food insecurity in older adults participating in the Older American Act Nutrition Program. (Jung Sun Lee, Mary Ann Johnson, Arvine Brown, and Mark Nord. Journal of Nutrition, May 2011). These could be added to screening tools to help prioritize individuals most in need of nutrition services.

1. During the last 30 days, how often was this statement true: The food that we bought just didn't last, and we didn't have money to get more? Often Sometimes Never

2. During the last 30 days, how often was this statement true: We couldn't afford to eat balanced meals? Often Sometimes Never

3. In the past 30 days, did you or other adults in your household ever cut the size of your meals because there wasn't enough money for food? Yes, on ≥3 days Yes, on 1 or 2 days No

4. In the past 30 days, did you or other adults in your household ever skip meals because there wasn't enough money for food? Yes, on ≥3 days Yes, on 1 or 2 days No

5. In the last 30 days, did you ever eat less than you felt you should because there wasn't enough money to buy food? Yes No

6. In the last 30 days, were you ever hungry but didn't eat because you couldn't afford enough food? Yes No

AAA Procedure Manual shall address:

IAC 17-6.10(9) Development of methods by which priority for delivery of services is determined; *IDA recommends developing a standardized priority assessment tool.*

When program resources are insufficient to meet the demands for nutrition program services, the number of meals that can be provided with existing funds needs to be determined. Then standardized procedures are to be used for prioritizing those most in need of nutrition services. This process will lead to the development of a waiting list when all meal requests cannot be filled.

The use of a scoring sheet is recommended to fairly evaluate the following criteria in determining priority for service. The individuals with the highest number of points would be given priority and would be the first served.

Criteria for determining priority:

- Food Insecurity- based on the six questions in box below.
- Social Need – isolation, living alone, lacking family or social supports.
- Functional Need –limitations in activities of daily living; limitation in meal preparation, shopping, mobility, mental or physical inability to perform specific tasks.
- Health Needs- acute and/or chronic health conditions, at risk for institutionalization or recent discharge, etc.
- Economic Need – eligibility for income assistance programs, self-declared income at or below XXX% of the poverty threshold, etc.
- Nutrition Risk- high nutrition risk score based on ten Nutrition Screening Initiative questions.
- Personal observations during home visit (if applicable.

Establishing a policy for priority is also related to:

IAC 17—7.3(231) Outreach for greatest need. Each AAA shall conduct outreach efforts to identify the older individuals with greatest economic or social needs and to inform the older individuals of the availability of services. The outreach efforts shall place special emphasis on rural, low-income, minority and American Indian older individuals.

March for Meals 2014

Sioux City Councilwoman Rhonda Capron delivering meals to Home bound meal Participant Marlene Ewing.

The Sioux City Region of Connections Area Agency on Aging had a tremendous turn out for the Mayors March For Meals promotion in its five county region. Mayors or community champions helped serve/deliver meals to seniors at all of our 21 meal sites. Some even agreed to participate 2-3 days to show their support. One hundred percent of the Sioux City area was represented compared to 33% of all counties in the nation that were registered on the Meals on Wheels Association of American (MOWAA) website.

Effectiveness of Nutrition Education and Nutrition Counseling for Older Adults

Older adults are living longer but many have chronic health conditions. Promoting health and longevity, and quality of life of older adults is both timely

and needed. Nutrition is an integral component of health and health promotion for all ages. In later years, optimal nutrition can help older adults retain their independence, delay institutionalization, and improve overall quality of life. A review of literature involving nutrition counseling and nutrition education has reported positive outcomes. Nutrition counseling by a dietitian that involve active participation and collaboration in developing a personalized health plan and goal setting with the input of the older adult along with using motivational techniques showed best outcomes.

Implementing the 2009 Food Code

This is information provided by DIA related to implementation of the 2009 Food Code.

2-501.11 Clean-up of Vomiting and Diarrheal Events.

When an employee, customer, or other individual vomits or has a diarrheal event in a food establishment, there is a real potential for the spread of harmful pathogens in the establishment. Putting the proper response into action in a timely manner can help reduce the likelihood that food may become contaminated and that others may become ill as a result of the accident.

According to the CDC, Norovirus is the leading cause of foodborne disease outbreaks in the United States. More specifically, Noroviruses are the most common cause of sporadic cases and outbreaks of acute gastroenteritis. Norovirus is the most common cause of gastroenteritis in people of all ages and it is responsible for greater than 50% of all foodborne gastroenteritis outbreaks. CDC estimates that 21 million cases of acute gastroenteritis are due to Norovirus infection.

Noroviruses can be highly contagious, and it is thought that an inoculum of as few as 10-18 viral particles may be sufficient to infect an individual. Transmission occurs via foodborne and person-to-person routes, airborne inhalation of vomitus droplets, and also through contact with contaminated environmental surfaces. Good evidence exists for transmission due to aerosolization of vomitus that presumably results in droplets contaminating surfaces or entering the oral mucosa and being swallowed.

In addition, the potential transmission level of Norovirus shed in the feces at levels up to 1 trillion viral particles per gram of feces and one projectile vomiting incident can contaminate the environment with 300,000 viral particles. One study found that employees who reported having cleaned up vomitus were more likely to contract illness that those who did not.

Norovirus causes acute onset of vomiting (often explosive) and diarrhea (also often explosive) which can contaminate surfaces and become airborne increasing the chances of additional infections. A recent study has also

shown that the bathroom environment was identified as a major reservoir of human Norovirus, even in the absence of an ill individual on site. Studies have shown that Norovirus can survive on fomite surfaces for up to at least 5 days at room temperature and that routine cleaning, without a disinfectant specifically to address Norovirus, may be ineffective in eliminating its presence on fomite surfaces and can even serve as a means of spreading the virus to other fomites.

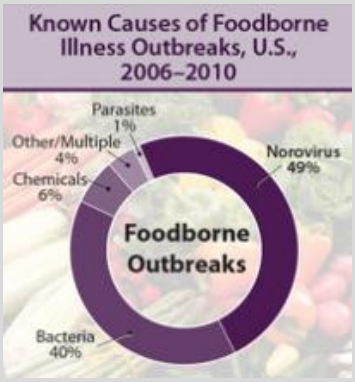
Effective cleanup of vomitus and fecal matter in a food establishment should be handled differently from routine cleaning procedures. It should involve a more stringent cleaning and disinfecting process. Some compounds that are routinely used for sanitizing food-contact surfaces and disinfecting countertops and floors, such as certain quaternary ammonium compounds, may not be effective against Norovirus. It is therefore important that food establishments have procedures for the cleaning and disinfection of vomitus and/or diarrheal contamination events that address, among other items, the use of proper disinfectants at the proper concentration.

Consumers are at risk of contracting Norovirus illness from direct exposure to vomitus or from exposure to airborne Norovirus from vomitus. Additionally, exposed food employees are also at risk of contracting Norovirus illness and can subsequently transfer the virus to ready-to-eat food items served to consumers.

The Food Code specifies that the Person in Charge is to exclude or restrict a food employee who exhibits, or reports a symptom, or who reports a diagnosed illness or a history of exposure to Norovirus. A clean-up and response plan is intended to address situations where a food employee or other individual becomes physically ill in areas where food may be prepared, stored or served. Once such an episode has occurred, timely effective clean-up is imperative.

When developing a plan that addresses the need for the cleaning and disinfection of a vomitus and/or diarrheal contamination event, a food establishment should consider:

- the procedures for containment and removal of any discharges, including airborne particulates;
- the procedures for cleaning, sanitizing, and, as necessary, the disinfection of any surfaces that may have become contaminated;
- the procedures for the evaluation and disposal of any food that may have been exposed to discharges;
- the availability of effective disinfectants, personal protective equipment, and other cleaning and disinfecting equipment and appurtenances intended for response and their proper use;
- procedures for the disposal and/or cleaning and disinfection of tools and equipment used to clean up vomitus or fecal matter;
- the circumstances under which a food employee is to wear personal protective equipment for cleaning and disinfecting of a contaminated area;



- notification to food employees on the proper use of personal protective equipment and procedures to follow in containing, cleaning, and disinfecting a contaminated area;
- the segregation of areas that may have been contaminated so as to minimize the unnecessary exposure of employees, customers and others in the facility to the discharges or to surfaces or food that may have become contaminated;
- minimizing risk of disease transmission through the exclusion and restriction of ill employees as specified in §2-201.12 of the Food Code;
- minimizing risk of disease transmission through the prompt removal of ill customers and others from areas of food preparation, service and storage; and
- the conditions under which the plan will be implemented.

When a food employee has been diagnosed, has recent history or exposure to, or is the suspect source of a confirmed disease outbreak of Norovirus, it must be reported to the person in charge per the FDA Food Code in subparagraphs 2-201.11 (A)(2)(a), 2-201.11(A)(4)(a), 2-201.11(A)(5)(a), and ¶2-201.11(B). If a food employee has been diagnosed with Norovirus it must also be reported to the regulatory authority. Refer to public health reasons for §2-201.11 Responsibility of the Person in Charge, Food Employees, and Conditional Employees for more information about appropriate employee health policies.

Norovirus is killed by bleach at 5000 ppm. Note new bleaches on market are more concentrated so recipe to reach 5000 ppm may change. If you have an emergency spill kit, make sure it is effective for Norovirus.

In-service Training on Norovirus

Narrator: Our story begins with Sally, five days before Thanksgiving. Sally has plans to host the family's Thanksgiving event, and assist at the community dinner for the homeless in the evening. She is grocery shopping for supplies, when she begins to feel really bad. Insert Q 1. Clean up Aisle Five!

Skit: Sally is with a toy grocery cart wandering around conference tables picking up items, when she experiences symptoms, and then vomits all over. She tosses tiny fluff balls to illustrate dissemination of particles and projectile nature of vomiting. She abandons her cart and runs out of the store, very mortified.

Narrator: Here comes Maria to clean up the mess. Does Maria know how to clean up this mess? Has she received any training? If she uses the mop and bucket with cleaning agent, is that sufficient? Question 2:

Skit: Maria is seen pushing a mop bucket.

After discussion of cleaning, **Narrator resumes**: This was Maria's last day working at the grocery store before her planned vacation with family. She has an early morning flight tomorrow to visit her grandmother. Won't grandma be glad to see her granddaughter and introduce her to all the friends in her independent care facility?

Skit: Maria is seen with a rolling suitcase. She is beginning to drag, and indicates an upset stomach. She boards plane, and then pulls out a "barf bag".

Narrator: Back to Sally, who has spent last three days at home nursing her illness and overcoming her mortification. Thanksgiving is in two days and she has a lot to do. She soldiers on, preparing pies, chopping onions, making stuffing, and other pre-preps.

Skit: Sally is shown with apron, still dragging, but working in kitchen with food. Show food items with blue fluff balls.

Narrator: Thanksgiving Day arrives – the family event is a success. Sally has more energy today so after dinner, she heads to the community center to assist with meal service. More particles are disseminated.

Skit: Can show "family" around a table. Can fast forward to next morning and complaints of illness or show them dispersing to their own homes.

Narrator: Because Sally was feeling better, she wanted to honor her commitments. Yet, unknowingly, she likely was index case for Norovirus outbreak in two states.

Clicker or Text code questions – multiple choice

Question 1: What are typical symptoms of Norovirus? Vomiting (projectile): Diarrhea

Question 2: What is incubation period for the Norovirus with a new host? 12 – 60 hours (more than 50% of cases will show vomit). Stool samples collected 48 – 72 hours after onset of symptoms.

Question 3: How far can vomit travel? (up to two feet)

Question 4: What is infectious dose of Norovirus? 20 particles (a particle is more than one cell)

Question 5: What cleaning solution strength of bleach is needed for Norovirus? 1000 to 5000 ppm

Question 6: How long should someone allow for recovery? Two days after symptoms have stopped.

Discussion Questions:

1. What is procedure for use of the cleaning solution? Aisle 5 is canned goods; vomit dispersed onto shelves as well as floor. Discuss training, tools, cleanliness of these, cleaning of these.
2. Travel strategies or precautions that can be taken.
3. Identify points of contamination – direct and indirect.
4. What is the best line of defense of protection?

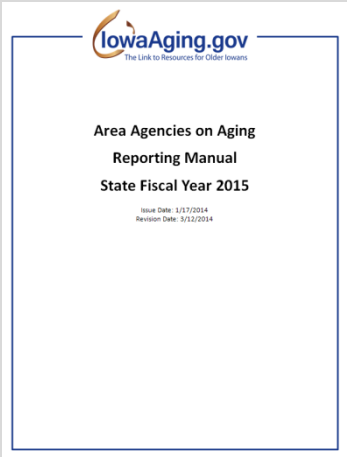
- *The in-service is modified from presentation at InFORM Conference 2013 in San Antonio by Michele Samarya-Timm, Leslie Barclay and Julia Wolfe and provided by Catherine Strobehn, PhD, RD, CP-FS, Iowa State University.*

Resources:

1. *CDC web site , including cleaning posters at http://www.disinfect-for-health.org/resources; http://www.disinfect-for-health.org/wp-content/themes/disinfect/pdfs/NorovirusPrevent_8.5x11_Eng_Color.pdf and http://www.cdc.gov/norovirus/about/index.html*
2. *Guide by DIA/Public Health*

Video on how to collect a stool sample http://www.idph.state.ia.us/cade/Foodborne.aspx

Nutrition Risk Screening



The Reporting Manual (page 23) defines when to complete the Nutrition Screening questions below:

Nutritional Risk Screening. The Nutritional risk score obtained from the *Determine Your Nutritional Health* Checklist for a client receiving one or more of the services listed below.

1. For all clients receiving congregate meals, home-delivered meals, nutrition counseling and case management: The provider will assess the nutrition risk screening at the time the service is first initiated for the client. Thereafter, the provider will assess the data on an annual basis.

2. For all clients receiving home-delivered meals: The provider will assess the nutrition screening data at the time the service is first initiated for the client. Thereafter, the provider will assess the data every six months.

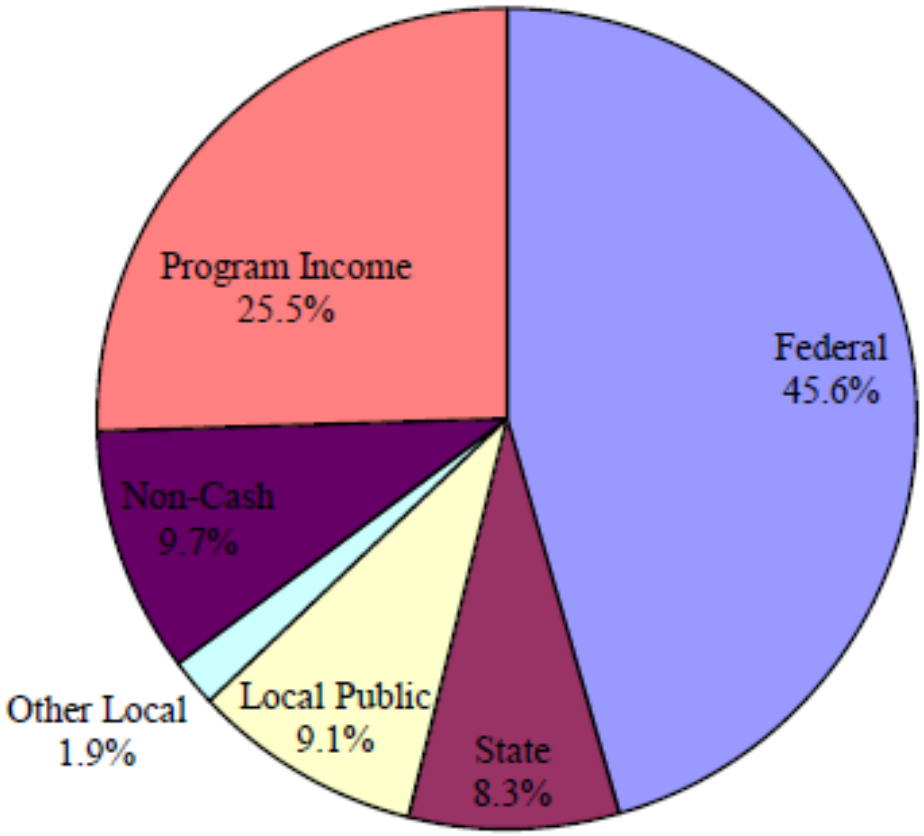
It is up to the AAA to determine if they want the entire intake form completed every 6 months by the Home Delivered Meal consumers.

Are You Using Correct Terminology?
If you are updating your policies and procedures or writing new contracts, the correct terminology for the menu nutrient requirements are DRIs or Dietary Reference Intakes of the Food and Nutrition Board of the Institute of Medicine of the National Academies of Science.

Are the Congregate and Home Delivered Meals Free?

Some meal participants may have the misperception that the meals are paid for by the government. Unfortunately the government support for the program is not paying the complete meal check. Far from it! Last year the Federal government funded 45.6% of the cost of providing the congregate meals here in Iowa. The meal participants' are helping support the nutrition program with their contributions. They provided 25.5% of the meal cost. Individual contributions are important and are appreciated but meals cannot be denied if someone is unable to make a contribution.

Congregate Meals FY2013



Tips to Control Meal Costs

- Use standardized menus- produce just what is needed and avoid left overs.
- Use portion control- weigh meat portions, use correct sized serving utensils so servings match what is posted on the menu.
- Account for every meal

Resources

Resources

Nutrition

Sodium Intake from Pizza: A Dietary Data Brief indicates that pizza contributed 33% and 38% of daily sodium intake among children and adult consumers, respectively. For consumers of pizza, the average intake of sodium from pizza was 1,136 mg for children and 1,599 mg for adults. On the day eaten, pizza provided about ¼ of the total day's calories and about $^{1}/_{3}$ of the day's sodium and calcium for children and adults. The Data Brief may be found at http://www.ars.usda.gov/SP2UserFiles/Place/12355000/pdf/DBrief/11_consumption_of_pizza_0710.pdf.

Protein Intake: A new study found that a high-protein diet during middle age was associated with higher mortality. In adults over 65, however, a high-protein diet was linked to lower mortality. Click here to read the NIH summary. The study in Cell Metabolism may be read here

Eating right, on a budget: NCOA developed 3 videos related to nutrition. For older adults living on a fixed income, it can be difficult to eat well. Yet, healthy nutrition is critical to staying active and independent. Watch and share our 3 new videos on how to get help paying for food, ways to shop smart, and tips to make comfort foods healthier. Then visit BenefitsCheckUp® to download your state's application for food assistance.Watch 3 videos | Find help paying for food

Fall Prevention

Welcome to Medicare Examination (Initial Preventive Physical Exam or IPPE) A falls risk assessment is a required element of the Welcome to Medicare examination. A quick reference guide on "The ABCs of Providing the IPPE" is available at https://www.cms.gov/MLNProducts/downloads/MPS_QRL_IPPE001a.pdf

Annual Wellness Visit: The Affordable Care Act provides for an Annual Wellness Visit (AWV) including Personalized Prevention Plan Services (PPPS) for Medicare beneficiaries as of January 1, 2011. The initial Annual Wellness Visit requires a review of individual functional level and safety (falls). For more information about the Annual Wellness Visit, its various components and billing information, see https://www.cms.gov/MLNMattersArticles/downloads/MM7079.pdf

The Physician Quality Reporting Initiative: This incentivizes certain providers to assess fall risk and to create a fall prevention plan if a risk is identified. Eligible professionals, including physicians, nurse practitioners, physician assistants, occupational and physical therapists in independent practice, and other practitioners providing services that are paid under the Medicare Physician Fee Schedule, may voluntarily report on a set of quality measures through the Medicare claims they submit. Professionals who successfully

Resources

report on measures are eligible for incentive payments. For more information, visit www.cms.hhs.gov/PQRS.

The PQRS presents an opportunity for providers to screen patients for falls risk and provide follow-up care if medically necessary and reasonable. Falls PQRS measures are described as follows:

- Falls: Risk Assessment
  - Percentage of patients aged 65 years and older with a history of falls who had a risk assessment for falls completed within 12 months.
- Falls: Plan of Care
  - Percentage of patients aged 65 years and older with a history of falls who had a plan of care for falls documented within 12 months.

For more information on the specifications for reporting this measure, visit https://www.cms.gov/PQRS//15_MeasuresCodes.asp

Prevent Falls – Brochures: You can find them at http://www.cdc.gov/HomeandRecreationalSafety/Falls/pubs.html

www.stopfalls.org specifically here: http://stopfalls.org/resources/center-developed-resources/ or here http://stopfalls.org/individuals-families/balance-mobility/

Fall Prevention Infographic: Was created by NCOA to promote the annual Fall Prevention Awareness Day www.ncoa.org/FPAD, September 23rd www.ncoa.org/6stepstopreventafall: 6 steps to prevent a fall

Fall Prevention Awareness Day 2014: The theme for Falls Prevention Awareness Day 2014 has been announced as Strong Today, Falls Free® Tomorrow. Last year, 47 states participated in Falls Prevention Awareness Day. To learn about new evidence-based programs and to help you make plans for this event visit. Get involved

Iowa Fall Prevention Coalition: http://www.ncoa.org/improve-health/center-for-healthy-aging/falls-prevention/state-coalitions-map/iowa.html and more about the issue of falls in IA here: http://www.ncoa.org/improve-health/center-for-healthy-aging/content-library/falls-state-profiles/IA-FP-profile-2011-FINAL.pdf

Health Promotion

Community Transformation Grant: The February-March 2014 edition of the CTG newsletter can be accessed at http://bit.ly/1g1Bovi. This edition features articles on the Prevention Impacts Simulation Model (PRISM) and smoke-free multi-unit housing (including senior housing) as well as program updates and success stories.

Hispanic Health: Key findings from the Hispanic Community Health Study include:

- Diabetes is common among Hispanics. It affects about 1 in 4 adults ages 45 to 64, and almost half of those ages 65 to 74.

- Obesity is most common among those of Puerto Rican origin (nearly half) and least common among those originating from South America (about 3 in 10).
- High blood pressure is most common among those of Cuban origin (just under one-third) and least common among those of South American origin (roughly 1 in 5).
- You can find the data book in English and Spanish at http://1.usa.gov/1fHGa0L.

Communication

Developing Materials for Older Adults: The best written messages are precise, short, easy to understand and focus on actions steps. Information on how to develop materials can be found at: http://www.nia.nih.gov/health/publication/making-your-printed-health-materials-senior-friendly

Food Safety

Food Safety Educational Games: Fight Bac has developed games to teach children about food safety. Some adults may find the games an interesting way to review important facts. http://campaign.r20.constantcontact.com/render?ca=5ee2d7b4-db38-4bea-abc1-067c9528e4ae&c=66d50330-32f1-11e3-bc03-d4ae52710c75&ch=6800d900-32f1-11e3-bcc0-d4ae52710c75

Food Safety for At-Risk Group: Older adults are at a greater risk for developing a serious foodborne illness. The immune systems of people with certain illnesses such as cancer, diabetes, and HIV/AIDS are often weakened also making them more susceptible.
Here are some things you might not know about certain at-risk populations and food safety:

- According to the CDC, people over 74 years of age are five times more likely to die from infectious diarrheal disease than those in the next highest group (children under four years of age)
- Salmonellosis and campylobacteriosis are more common in patients with diabetes than in the general population
- Patients with diabetes are about 25 times more likely to develop listeriosis than non-diabetics are
- Conditions that increase iron availability in the body, like liver dysfunction, can stimulate growth of several foodborne pathogens, including Bacillus, Clostridium, Listeria, Campylobacter, and Salmonella

Resources from FDA and USDA:

- Food Safety: It's Especially Important for At-Risk Groups
- USDA Resources for At-Risk Populations
- Immune Compromised: Booklet Series

Resources

Food Security

Grandparents Raising Grandchildren: This can be a predictor of senior hunger. A white paper on the topic can be accessed in the April 2012 issue of *Seniority* at http://www.nfesh.org/wp-content/uploads/2014/03/Seniority-White-Paper-Issue-1-3-25-14.pdf

Senior Hunger Fact Sheets: These fact sheets on senior hunger were developed by the Meals on Wheels Association of America. The methods for calculating the facts are identified at the bottom of the fact sheet. The Iowa fact sheet can be found at **mowaa.org/factsheets**.

Food Safety To Go For Home Delivered Meal Program: This is a food safety training program for staff, volunteers and clients developed by the University of Maryland in collaboration with the Meals On Wheels Association of America (MOWAA). Module 1-Food safety basics, is an overview of food safety for all staff and volunteers. Modules 2-5 are for specific individuals within a program: Module 2 is for the program director, Module 3 is for the food service management staff, Module 4 is for food service workers (staff and volunteers), and Module 5 is for drivers (staff and volunteers). Module 6, which is for clients, is in the form of magnets for drivers to give to clients. All staff and volunteers should complete Module 1, as well as other relevant modules. The curriculum can be accessed at http://nfsc.umd.edu/programs/foodsafety

Poster for the Prevention of the Spread of Norovirus: Downloadable posters are available at the following link.
http://www.disinfect-for-health.org/resources
The *Help Prevent the Spread of Norovirus* poster is featured on the last page of this issue of Healthy Aging Update.

Resources

Help Prevent the Spread of Norovirus ("Stomach Bug")

IF NOROVIRUS IS AFFECTING YOUR COMMUNITY, HERE ARE SOME ACTIONS YOU CAN TAKE TO HELP PREVENT FURTHER ILLNESS

1 Clean up surfaces

a. Clean frequently touched surfaces with soapy water
b. Rinse thoroughly with plain water
c. Wipe dry with paper towels
d. Dispose of paper towels

DON'T STOP HERE: GERMS CAN REMAIN ON SURFACES EVEN AFTER CLEANING!

2 Disinfect surfaces

a. **Prepare and apply a chlorine bleach solution**

Make bleach solutions fresh daily; keep out of reach of children; never mix bleach solution with other cleaners

b. **Air dry surfaces unlikely to have food or mouth contact**

or…

c. **Rinse all surfaces intended for food or mouth contact with plain water before use**

3 Wash your hands thoroughly with soap and water

Hand sanitizers may not be effective against norovirus

Facts about Norovirus

Norovirus is the leading cause of outbreaks of diarrhea and vomiting in the US, and it spreads quickly.

Norovirus spreads by contact with an infected person or by touching a contaminated surface or eating contaminated food or drinking contaminated water. Norovirus particles can even float through the air and then settle on surfaces, spreading contamination

Norovirus particles are extremely small and billions of them are in the stool and vomit of infected people.

Any vomit or diarrhea may contain norovirus and should be treated as though it does.

People can transfer norovirus to others for at least three days after being sick.

Scientific experts from the U.S. Centers for Disease Control and Prevention (CDC) helped to develop this poster. For more information on norovirus prevention, please see http://www.cdc.gov/norovirus/preventing-infection.html.

co.somerset.nj.us/health | neha.org | waterandhealth.org | americanchemistry.com

disinfect-for-health.org