NASEM Committee: Review of Evidence on Alcohol and Health

Sponsor Briefing

January 25, 2024

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Background on the *Dietary Guidelines for Americans*
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Review the Scope of Work for this NASEM study
Eve Stoody, PhD

Nutrition Evidence Systematic Review Methodology: Considerations for the Review of Evidence on Alcohol and Health
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About the *Dietary Guidelines for Americans*

- Provides evidence-based advice on nutrition intake to meet energy and nutrient needs, promote health, and help prevent chronic disease
- Mandated by the National Nutrition Monitoring and Related Research Act to reflect the preponderance of scientific and medical knowledge
- Published jointly every five years by HHS and USDA
- Developed in a multi-step, multi-year process that includes review of evidence by an external, independent advisory committee – and development of the *Dietary Guidelines* by Federal staff from HHS and USDA
- To prevent duplication of efforts, carries forward existing current, evidence-based Federal guidance, such as guidance on food safety (e.g., FoodSafety.gov), seafood (i.e., FDA/EPA Advice about Eating Fish), and physical activity (i.e., *Physical Activity Guidelines for Americans*)

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From 1980 to present, the *Dietary Guidelines* recommendations for alcoholic beverage consumption have been relatively consistent

- Each edition: If you drink alcohol, it should be consumed in moderation.
- 1980 & 1985 editions: Defined moderation as “one to two” drinks per day. The 1985 edition was the first to define what counts as a drink.
- 1990 edition: Up to 1 drink per day for women and up to 2 drinks per day for men.
- 2020 edition – Current recommendation:
  “Adults of legal drinking age can choose not to drink, or to drink in moderation by limiting intake to two drinks a day or less for men and 1 drink or less for women, when alcohol is consumed. Drinking less is better for health than drinking more. There are some adults who should not drink alcohol such as women who are pregnant.”

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For the 2025 *Dietary Guidelines for Americans* development process, alcoholic beverages are being addressed through a separate process

Alcoholic beverages remain a high priority topic, but because it requires significant, specific expertise and has unique considerations, it will be examined in a separate effort led by HHS Agencies that support work on this topic.

- The Interagency Coordinating Committee on the Prevention of Underage Drinking (ICCPUD), led by the HHS Substance Abuse and Mental Health Services Administration (SAMHSA), volunteered to support this effort as part of a broader scientific review and annual ICCPUD report.
- Then, Congress funded a study with NASEM to review evidence on alcoholic beverages and health.
- The ICCPUD technical subcommittee will consider the findings from this NASEM study as part of its evidence review and make recommendations on adult alcohol consumption.
- The ICCPUD subcommittee report will be published and available to the public in 2025. This timeline will allow for the topic of alcoholic beverages and health to be included in the next edition of the Dietary Guidelines.

DietaryGuidelines.gov > Related Projects

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Scope of Work for the Study on the Review of Evidence on Alcohol and Health

2023 Consolidated Appropriations Act outlined requirements for this study:

- USDA, in consultation with HHS, mandated to enter into an agreement with NASEM
- *"Conduct a study of the eight topics and scientific questions related to alcohol previously published by USDA and HHS"*
- Transparent operations
- Based on the preponderance of scientific and medical knowledge
- Timeline
  - In time for the 2025 *Dietary Guidelines for Americans* process to include a recommendation for alcohol

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The NASEM study is a systematic review project on alcoholic beverages and health

1. What is the relationship between alcohol consumption and **growth, size, body composition, and risk of overweight and obesity**?
2. What is the relationship between alcohol consumption and **risk of certain types of cancer**?
3. What is the relationship between alcohol consumption and **risk of cardiovascular disease**?
4. What is the relationship between alcohol consumption and **neurocognitive health**?
5. What is the relationship between alcohol consumption and **risk of all-cause mortality**?
6. What is the relationship between alcohol consumption during lactation and **post-partum weight loss**?
7. What is the relationship between alcohol consumption during lactation and **human milk composition and quantity**?
8. What is the relationship between alcohol consumption during lactation and **infant developmental milestones, including neurocognitive development**?

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Background on these questions

- These eight questions were proposed by USDA and HHS to the 2020 Dietary Guidelines Advisory Committee for consideration in their review.
- The 2020 DGAC conducted one systematic review on alcoholic beverages: "What is the relationship between alcohol consumption and **all-cause mortality**?"
- *"The [2020 DGAC] prioritized the review of alcohol and all-cause mortality because it is arguably the most important mortality outcome related to alcohol, and because Dietary Guidelines Advisory Committees had not previously reviewed this topic."* – Scientific Report of the 2020 Dietary Guidelines Advisory Committee
- The other seven questions specific to alcoholic beverages and health were last examined by the 2010 DGAC.

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The NASEM Committee's Report

- The Committee is asked to produce a report that summarizes the evidence from systematic reviews for these eight questions. It should include conclusion statements that have been graded to indicate the strength of evidence.
- The Committee is encouraged to assess research availability for each question. This may include determining whether any existing systematic reviews can be used to answer the question, or conducting an evidence scan to refine a question and/or determine if there is enough evidence to conduct a review.
- The Committee's report will not include dietary guidance statements, recommendations, or advice.
- The findings from these systematic reviews will be considered as part of the evidence base used to inform Federal recommendations on alcoholic beverages, which will be included in the next edition of the *Dietary Guidelines*.

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Nutrition Evidence Systematic Review Methodology: Considerations for the Review of Evidence on Alcohol and Health

January 25, 2024

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Presentation Objectives

1. Overview of NESR's systematic review methodology
2. Methods for evaluating research availability
3. Accessing information about NESR and previous systematic review work

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NESR supports the CNPP mission:

Improve the health and well-being of Americans by developing and promoting dietary guidance that links scientific research to the nutrition needs of consumers

Systematic Reviews
Rapid Review
Evidence Scans

Dietary Guidelines for Americans,
Thrifty Food Plan,
and other nutrition guidance, policy, and education efforts

Health and well-being of Americans

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NESR systematic review methodology

A gold-standard evidence synthesis project that answers a nutrition question of public health importance using systematic, transparent, rigorous, and protocol-driven methods to search for, evaluate, synthesize, and grade the strength of the eligible body of evidence.

NESR Methodology Manual:
https://nesr.usda.gov/methodology-overview

Perspective: USDA Nutrition Evidence Systematic Review Methodology: Grading the Strength of Evidence in Nutrition- and Public Health-Related Systematic Review. Advances in Nutrition. 2021; 13:982-991. DOI: 10.1093/advances/nmab147.

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Develop a protocol

Search for and screen articles

Extract data and assess risk of bias

Synthesize the evidence

Answer the question and grade the evidence

Recommend future research

NESR evaluates research availability for systematic review questions

Research availability can be used to prioritize systematic review questions and manage resources.

- Conduct a search for **existing eligible systematic reviews** and determine whether any can be used to answer the systematic review question
- Conduct an evidence scan to **estimate the volume and characteristics of primary research** available and determine whether there is sufficient research available to conduct a systematic review or to help refine the protocol

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NESR has methods to identify eligible, existing non-NESR reviews to answer systematic review questions

- Using an existing systematic review to replace a new review can:
  - Prevent duplication of effort
  - Preserve resources
- Existing systematic reviews need to address the right question using a similar protocol, and be rigorous and transparent
- Our methods and criteria were informed by other organizations:
  - Agency for Healthcare Research and Quality (AHRQ)
  - Australian Dietary Guidelines
  - Health Canada
  - Nordic Nutrition Recommendations

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NESR searches for existing systematic reviews and identifies eligible non-NESR reviews using the criteria below

Inclusion Criteria	Exclusion Criteria
Sufficiently aligns with a topic or question defined in an *a priori* NESR protocol	Does not sufficiently align with a topic or question defined in an *a priori* NESR protocol
Published since 2020	Published prior to 2020
Commissioned by a national food or health authority, or an international scientific body	Commissioned, sponsored, or funded by industry or an entity with a business or ideological interest
Clearly describes the systematic review methodology and adequately reports results	Does not clearly describe the systematic review methodology or inadequately reports results
Provides an evidence grade for the strength of the evidence underlying the finding	Does not provide an evidence grade for the strength of the evidence underlying the finding
Rated as high quality (based on AMSTAR 2*)	Rated as critically low, low, or moderate quality (based on AMSTAR 2*)

* Shea BJ, Reeves BC, Wells G, et al. AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both. *BMJ*. Sep 21 2017;358:j4008.doi:10.1136/bmj.j4008.

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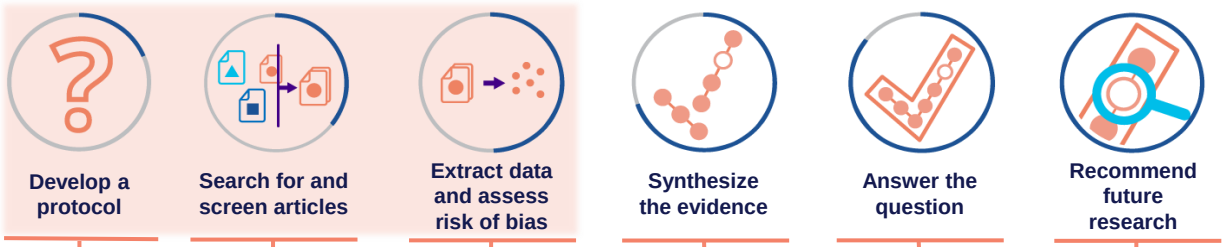
NESR conducts evidence scans to determine whether there is sufficient evidence available to conduct a review or to refine protocols

Evidence Scan: An exploratory evidence description project in which systematic methods are used to search for and describe the volume and characteristics of evidence available on a nutrition question or topic of public health importance.



Develop a protocol

- Guided by the purpose of the evidence scan
- Exploratory or draft in nature

Search for and screen articles

- Fewer databases
- Shorter date range

Extract data and assess risk of bias

- *Minimal* data extraction
- No extraction of results
- No risk of bias assessment

Synthesize the evidence

- Describe the volume and characteristics of evidence
- No synthesis of results

Answer the question

- No conclusion statement or grading of evidence
- Determine if there is sufficient evidence to conduct/update a review

Recommend future research

- Acknowledge gaps, considerations for future reviews

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NESR values transparency and information about us and our work is accessible on our website: NESR.usda.gov

Dietary Guidelines Advisory Committee Systematic Reviews:

- 2025 DGAC: https://nesr.usda.gov/2025-dietary-guidelines-advisory-committee-systematic-reviews
- 2020 DGAC: https://nesr.usda.gov/2020-dietary-guidelines-advisory-committee-systematic-reviews
- Each systematic review report transparently documents each step of systematic review process and the findings.

Protocols: https://nesr.usda.gov/protocols

NESR Methodology Manual: https://nesr.usda.gov/methodology-overview

Publications: https://nesr.usda.gov/publications

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Thank you!

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